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ABSTRACT

The guide was developed to establish a structural approach to training teachers, administrators, and counselors in the philosophy and techniques needed to integrate career education into instructional programs at all levels. It comprises a one-semester course to be taught in extension courses or seminars, and is divided into 12 sessions: background and rationale, developmental level outcomes for career education, constructing objectives to meet outcomes, developing content consistent with objectives, evaluating and assessing student behavior, implementing varied instructional strategies, developing mini-units, focus on affective career education/preparation for field experience, availability of materials in county media centers, follow-up of field experience/utilizing community resources, guest speaker presentation/identifying interest through testing, and a commitment to career education. Content of each session is presented under the headings of: goal statement, instructional objectives, lesson time, prerequisite sessions, resources required, instructor preparation tasks, instructional procedures (presented in detail), and debriefing. Each session is followed by a bibliography, exercise sheets or tests, and transparency masters and other teacher aids. (PR)

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CAREER EDUCATION IN-SERVICE

TEACHER TRAINING GUIDE

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Hal Byfield
Project Director

INTRODUCTION

The Career Education in-service teacher training project at Northern Arizona University developed this guide to establish a structural approach to training teachers, counselors, and administrators in career education. It is the opinion of the Project Staff at NAU that teachers are generally aware of information about careers and how it effects people. One of the most important concepts in this guide is the development of how to teach career education attitudes that must be built into all education at all levels. Teachers must recognize procedures and activities that will prepare young people for the society in which they live. It is the intent of the 12 sessions in this guide to give the participants a comprehensive knowledge of how to inform their students about the opportunities of career education.

This guide is to be used by the instructors to assist participants in extension classes and seminars in learning the concepts and principles relevant to teaching in the public schools of Arizona.

The content of the guide will introduce the instructor to the background of career education in the form of introduction, scope of career education, purpose and philosophy. The broad scope of the content in the sessions starts with a rationale for career education and proceeds to desired outcome of career education.

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INTRODUCTION

Career Education has existed in a variety of forms since the early 1900's. Perhaps there is more agreement about what career education is not than what it is. Most spokesmen agree it is not a single course or unit; it is not vocational education, it is not something taught and learned in isolation, and it is not the responsibility of a single functionary in the schools.[1] Career education combines the academic world with the World of Work. It must be available at all levels of education from the kindergarten through the university. A complete program of career education includes: Career Awareness, learning about self and the broad world of work; Career Orientation, orientation to occupational groupings and associated life styles; Career Exploration, in-depth occupational exploration and the associated entry-level skills and knowledges; and Career Preparation, entry level competency or prerequisites for further education or preparation for career advancement.

PURPOSE

The purpose of this in-service manual is to develop an understanding of the roles, interrelationships, concepts, and cooperation needed by classroom teachers to integrate Career Education into the instructional programs of all levels.

IN-SERVICE PHILOSOPHY

It is obvious that underlying the development of this manual is the assumption that career education is a significant movement in education. Since meeting the needs for teacher competency in career education is the goal of this manual, a participant-oriented in-service program needs to be developed. Instructors should recognize the need to stimulate interest and assist participants in recognizing needs. In-service programs should be designed to maximize freedom of response by individuals. Briefly, freedom of response is maximized by activities which are voluntary, varied and unstructured, or structured for maximum involvement.

The design of any session should be focused around what the program is to achieve (the objectives). The next step is to determine the means for reaching the desired outcome (the activity). And, finally, an evaluation of the session should reflect the relationship of learning to interest, involvement, success, feedback, discovery, and transfer.

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[1] *Orienting Prospective Teachers to Career Education*, Arizona Department of Education.

Manual Overview

The contents of this manual are divided into twelve sessions. These sessions may be taught as a three unit semester course, or when applicable used individually for lesser credits as workshop sessions. The contents include:

SESSION ONE - BACKGROUND AND RATIONALE OF CAREER EDUCATION

The participants are introduced to the factors in society that emphasize the need for career education. The elements of career education are discussed in light of these conditions.

SESSION TWO - DEVELOPMENTAL LEVEL OUTCOMES FOR CAREER EDUCATION

A variety of career education concepts are given. The participants will review the concepts noting those most applicable to their grade level. These are then compared to the identified outcomes at each developmental level. Participants then brainstorm activity suggestions for the concepts at their grade level.

SESSION THREE - CONSTRUCTING OBJECTIVES TO MEET OUTCOMES

The participants are introduced to the four major characteristics of an instructional objective, and given time to practice recognizing and writing objectives for suggested goal statements. The participants then begin the development of their unit by identifying a goal statement and writing at least four objectives.

SESSION FOUR - DEVELOPING CONTENT CONSISTENT WITH OBJECTIVES

The participants are given four principles of good lesson content. They are provided instruction and practice of these principles through a filmstrip, worksheets and discussion. The format and criteria for lesson content is presented.

SESSION FIVE - EVALUATING AND ASSESSING STUDENT BEHAVIOR

The participants are introduced to 16 terms used to describe behaviors in the three learning domains. They then review the two major classifications of test items and discuss the advantages and disadvantages of the various item types. They then categorize their objectives and develop test items for each.

SESSION SIX - IMPLEMENTING VARIED INSTRUCTIONAL STRATEGIES

The participants become involved in a game to help them get involved and thinking about careers. Suggestions are provided for activities that allow students to get involved. The participants are provided time to continue lesson development, and urged to incorporate activity-oriented instruction in their units.

SESSION SEVEN - DEVELOPING MINI-UNITS

The distinction between a unit and a mini-lesson is presented. The participants are asked to develop a suitable activity given format and criteria of a mini-lesson.

SESSION EIGHT - FOCUS ON AFFECTIVE CAREER EDUCATION/ PREPARATION FOR FIELD EXPERIENCE

The participants are introduced to a three dimensional career model. Biographies of three individuals are assessed in relation to this model, participants also assess their own lives to determine which dimension of the models provides satisfaction and fulfillment. The second half of this session is spent preparing the participants for the field experience at a local career education media source.

SESSION NINE - AVAILABILITY OF MATERIALS IN COUNTY MEDIA CENTERS

The participants visit a local career education media center to determine what products and services are available to them.

SESSION TEN - FOLLOW-UP OF FIELD EXPERIENCE/ UTILIZING COMMUNITY RESOURCES

Part of this session is devoted to a follow-up of the field experience in session nine. Participants then become familiar with the ways community resources may best be utilized. Pre-activities for the guest presenter in session eleven are also included.

SESSION ELEVEN - GUEST SPEAKER PRESENTATION/
IDENTIFYING INTEREST THROUGH TESTING

A guest presenter is invited to discuss his career. An interest inventory will be administered and scored.

SESSION TWELVE - A COMMITMENT TO CAREER EDUCATION

The instructor may select the activities with which to conclude the course. Suggested activities are presented in this lesson.

PREPARING FOR THE SESSIONS

Given adequate preparation, the twelve sessions are not difficult to successfully conduct. The learning content of the exercises is: (1) the information generated by the participants themselves, and (2) the concepts outlined and illustrated in the Instructional Procedures. It is important that the instructor perceive himself or herself as a group leader "directing learning" rather than as a teacher "delivering information."

Because the majority of the sessions stipulate that the class work in small groups, the room in which the sessions are conducted should be able to accommodate a total group or several small groups.

It is important to be flexible about the time allotted for each exercise. Although most sessions have included time for individual lesson or activity development, participant interest should be an influencing factor.

Each session contains a bibliography which includes a listing of supplementary resources. It would be desirable to have these available and utilized as the instructor deems necessary.

Before conducting any session, it is strongly recommended that the instructor familiarize himself with the contents as outlined. This familiarization would include previewing required media, reviewing worksheets and handouts, as well as internalizing the sequence and content of the instruction. The summary is an important part of the instructional sequence and should be cooperatively developed by the instructor and class participants. Summarization points are listed and a suggested narrative provided. The debriefing section is designed as the last exercise of the class. The instructor should judge whether to use it as a culmination of the instruction, prior to group work, or as a culmination of the entire class meeting, prior to adjournment.

When possible, participant materials (worksheets, handouts, etc.) are included with each session. These may be used to prepare a ditto master on a thermofax machine or used as is on a copying machine. In any case, a detailed listing of Instructor Preparation Tasks may be found at the beginning of each session.

Special Considerations

It is important to note that the instructor needs to plan for a field trip experience in session nine and a guest speaker for session ten. Session four relies heavily on a commercial filmstrip. It is important to secure this filmstrip.

Conducting the Sessions

Assuming adequate preparation, conducting the session becomes a matter of following the instructions set down in the Procedures. To further ensure successful sessions:

Each session is composed of an introduction, tasks, summary and debriefing. For each of these components a sample narrative, testing of activities, and/or points to cover is given. It is up to the instructor to familiarize him/herself with the content and present it to the class. This will be done in the form of a lecture, where narrative is provided; group discussion or activity, when questions or work tasks specified. It is important that the introduction and summary statements be verbalized to the class participants.

Get participation started as soon as possible. Briefly state the purpose of the exercise, when called for, give a short presentation of the material; distribute necessary resource items; and start the participants working.

Follow your predetermined schedule. Unless the exercise appears to be totally without participant interest, stay with it. Make notes regarding what you think can be improved and revise the exercise accordingly before attempting it again.

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion.
2. Produce a summary of the main points in the session.
3. Provide an evaluation of the exercise.

4. Provide suggestions for future modifications of the exercise.

5. Identify additional topics the group wants to study.

SESSION PROFILE

Session Number	Session Title	Resources to be Acquired	Time Estimates
1	Background and Rationale of Career Education	Overhead projector Copies for each participant: Arizona Career Ed. What is It? Why Career Ed in Arizona? Career Ed. & You --The Teacher Questions & Answers About Career Ed.	Registration & Information--1 hour Participant Questionnaire--10 min. Class Pre-test--15 min. Class Overview/ Expectations--30 min. Career Ed. Rationale--1 hour
2	Developmental Level Outcomes for Career Education	Overhead projector & screen Felt tip pens (12) Butcher paper	Instruction & practice--2½ hours Reading time--½ hour
3	Constructing Objectives to Meet Outcomes	Overhead projector & screen Arizona State Career Matrix	Instruction & practice--1 hr. 45 min. Individual goal & objective writing--1 hr. 15 min.
4	Developing Content Consistent with Objectives	Overhead projector & screen Filmstrip projector & screen Filmstrip: Appro-Practice	Instruction--1 hr. 45 min. Individual lesson development 1 hr. 15 min.
5	Evaluating and Assessing Student Behavior	Overhead projector & screen	Instruction & practice--1 hr. 15 min. Individual lesson & item writing--1 hr. 45 min.
6	Implementing Varied Instructional Strategies	Overhead projector & screen Straight pins Classroom materials: colored construction paper, scissors, felt tip pens, butcher paper	Occupations Game--30 minutes Instruction--15 minutes Lesson Development--1 hr. 30 min. Lesson sharing--45 min.

Session Number	Session Title	Resources to be Acquired	Time Estimates
7	Developing Mini-Units	Overhead projector & screen	Instruction & samples--1 hour Activity development--1 hour Sharing--1 hour
8	Focus on Affective Career Education/ Preparation for Field Experience	Overhead projector & screen Any film, filmstrip pertaining to career ed., not longer than 20 mins. Film/filmstrip projector (depending upon selection	Instruction--Objective one--1 hr. 30 min. Instruction/media presentation, Objectives two & three--1½ hours
9	Availability of Materials in County Media Centers	Media Center for session ten: A catalog of the resources available at Media Center (if available)	Entire class session
10	Follow-up Field Experience/Utilizing Community Resources	Catalog of resources at Media Center (if available) Butcher paper Felt tip pens	Follow-up of field trip-- Incorporating media into lesson 1½ hrs. Instruction & preparation for speaker--1 hour
11	Guest Speaker Presentation/ Identifying Interest Through Testing	Guest Speaker Copies of an interest inventory Scoring procedures for interest inventory	Guest Speaker & follow-up (Objective one) Instruction & practice--1½ hours
12	A Commitment to Career Education	None	Determined by instructor

SESSION ONE

GOAL STATEMENT

To identify some factors which emphasize the need for Career Education.

INSTRUCTIONAL OBJECTIVES

1. *The participants will identify three conditions in society that have provided the impetus for the development of a career education program.*

2. *The participant will select elements in the career education model which correspond to abilities or concepts needed by students to rectify previously identified societal conditions.*

LESSON TIME

Registration and Information:	1 hour
Participant Questionnaire:	10 minutes
Class Pre-test:	15 minutes
Class Overview/Expectations:	30 minutes
Career Education Rationale:	1 hour

PREREQUISITE SESSIONS

None

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Participant Questionnaire	Overhead projector & Screen
Class Pre-test	Sufficient copies of Arizona State Publications of:
Class Overview/Expectations	--Leadership in Learning Why Career Education in Arizona
Study Exercise	--Career Education: What Is It
Study Exercise Answer Key	--Questions and Answers About Career Education
Discussion Sheet: A Need For Change	

Instructor Preparation Tasks

1. Duplicate one *Participant Questionnaire* for each class member.
2. Duplicate one *Class Pre-test* for each class member.
3. Duplicate for each participant the *Class Overview/ Expectations.*
4. Duplicate for each participant the *Study Exercise* and *A Need For Change.*
5. Registration and Information - determined by instructor.
6. Administer *Participant Questionnaire* and *Class Pre-test* to each participant.
7. Distribute and discuss *Class Overview/Expectations.*

Instructional Procedures

Registration and Information
Determined by Instructor

Participant Questionnaire
Distribute questionnaire for completion by participants.

Class Pre-test
Distribute Pre-test. Following its completion, take a few minutes to discuss some of the major concerns.

Career Education Rationale

INTRODUCTION

Two of our basic historical values are in trouble in the United States--education and work. Education is in trouble because it has not given sufficient attention to the role of work in the life style and values of the individual. Work is in trouble because educators and philosophers have failed in adapting traditional work values to the needs of a new and more complex age. It is basically a societal crisis, not educational, that has created the call for career education. Career education, like most major educational reforms, has grown from broader societal concerns that have led people to turn to the education community as part of the needed solution.

Much of the societal concern motivating demands for career education is based rightly or wrongly on the following:

1 - The rising numbers of public assistance recipients
2 - Higher unemployment
3 - Job dissatisfaction
4 - Worker unrest
5 - Transition from a goods-producing to service- and information-producing economy

Dr. Sidney Marland, once Commissioner of Education, responded to these concerns and called for an educational program designed to make the classroom experience a meaningful and significant process of learning about all phases of life. This program called "Career Education" has three major goals: (1) learning to live, (2) learning to learn, and (3) learning to make a living.

TASKS

Distribute information sheet entitled, "A Need For Change."

Discuss the conditions in society that indicate a need for a change. Possible discussion questions/content:

Eighty percent of our present jobs don't require a college degree.

a. Why are courses geared toward college prep when more than 80% of the existing foreseeable careers don't require a college degree?

b. What kinds of skills are needed by the future work force?

c. What kinds of offerings (course content) should replace the traditional college prep requirements.

Deflating value of the diploma.

a. What steps can/should colleges and universities take to offset the deflating value of the diploma?

b. Does business and industry have a responsibility to offset this trend? If so, what steps can/should the business sector take?

Changes in jobs in lifetime: constantly new and obsolete jobs

a. What are reasons behind the apparent trend to change careers several times in one's lifetime?

b. What can the schools do to better prepare students for these future changes?

c. Does the school have the responsibility to educate for leisure time?

Distribute *Study Exercise.* Provide five minutes for its completion. Correct it with the class using the *Study Exercise Answer Key.*

Discuss with the class:

Bringing relevancy into the curriculum.

The Career Education program plans to make the curriculum relevant and unified. The model is an adaptation of the current structure and not a complete replacement. It will restructure education around life's developmental need--make education relevant, as real and exciting as life itself.

Students, whether bound for college, technical school, or work should be taking courses for the same purpose: to help them get where they want to go, and to *become what they want to become.* This is not a concept which should be introduced in high school; it should have its roots in the primary grades--give reason for learning about the world around us, for acquiring knowledge as a background for choice, and for developing basic and, later on, specific skills.

To achieve a meaningful curriculum, one of the things the schools must do is to give the general education program a massive infusion of illustrations from the world of work (and life in general). The vast majority of students in our schools need to have subject matter related to what concerns them in real life.

Career education, in sum, would reflect a far broader understanding of the purpose of education in today's highly sophisticated, technical, change-oriented society... the need not only to fit a person to function efficiently but to make him aware of why he is doing what he is doing...and to bring relevance to our classrooms for many who, with reason, now find them irrelevant.

Distribute the State Department booklet entitled, "Career Education: What Is It?"

Instruct the participants to read pages 8-12.

Have the participants group themselves into groups of five-six and work the exercises on pages 16 and 18. They may check their work with the answers in the booklet.

SUMMARY

This session dealt with the need for a career education program that will bring relevancy to the curriculum. The participants were introduced to the elements of the career education model. The next session will concentrate on career education outcomes for each developmental level.

DEBRIEFING (Should follow the summarization)

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before the debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

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Arizona Department of Education. *Career Education and You - The Teacher.* Phoenix, Arizona 1973.

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Arizona Department of Education. *Questions and Answers About Career Education.* Phoenix, Arizona 1973.

Arizona Department of Education. *Orienting Prospective Teachers To Career Education.* Phoenix, Arizona 1974.

Mesa Public Schools. *A Rationale for Career Education - II.* Mesa, Arizona 1972.

PARTICIPANT QUESTIONNAIRE

I. Personal

NAME _____

HOME ADDRESS _____ PHONE NO. _____

SCHOOL _____ POSITION _____

(Please answer only one of the following. If none are accurate, mark the closest.)

II. Position Information

A. Type of School

1. Size of school - Number of Teachers

a. up to 20
b. up to 100
c. up to 500
d. over 500

2. Location of District

a. urban - inner-city
b. suburban
c. rural - town
d. rural - isolated

3. Major ethnic attribute of school

a. Indian majority
b. Chicano majority
c. Black majority
d. Anglo majority

4. Economic Status - Majority - School

a. lower
b. middle
c. upper
d. mixed

B. Position Description

1. Description

a. classroom teacher
b. specialist (i.e., Lib., Spec. Ed., PE, Art, etc.)
c. consultant-researcher-project director
d. administrator

2. Concentration Level - Taught

a. K-3
b. 4-8
c. 9-12
d. All

3. Educational Specialty - Undergraduate

a. Education
b. Sciences
c. Humanities
d. Social Studies

4. Education Level

a. H.S. degree
b. B.A.
c. M.A.
d. Post M.A.

C. Employment Background

1. Years in Education Profession

a. up to 3
b. 4-10
c. 10-20
d. over 20

2. List approximate number of all jobs held outside of education beginning with your first.

a. 0
b. 1-5
c. 10-20
d. 20+

3. Age you entered education profession

a. 20-23
b. 23-26
c. 26-35
d. 35+

4. Type of military service

a. enlisted
b. officer
c. career
d. none

5. Your age

a. 20-25
b. 25-30
c. 30-40
d. 40+

6. Your major ethnic attribute

   a. Black
   b. Indian
   c. Chicano
   d. Anglo

7. Career Education exposure previous to this course

   a. none
   b. literature
   c. other teachers
   d. courses in career education

8. Grade placement of your Career Education Assignment

   a. elementary
   b. high school
   c. adult
   d. in-service teachers

III. Mark one activity in each group that you would most want to concentrate on in this class.

1. a. Personal inspection of commercially prepared materials
   b. Personal inspection of teacher prepared materials
   c. Development of your own materials

2. a. Preparing evaluation techniques for student performance
   b. Preparing evaluation techniques for materials and programs
   c. Preparing evaluation techniques for teachers performance

3. a. Develop a format for working more closely with parents
   b. Planning and developing in-service workshops for teachers
   c. Planning and developing techniques for community involvement.

4. a. Preparation of entire instructional unit
   b. Preparation of mini (short) classroom activities
   c. Preparation of maxi (longer) classroom activities

5. a. "Jam sessions" with educators in your interest area
   b. "Jam sessions" with educators in other areas than yours (with possible result of an interdisciplinary approach)
   c. "Jam sessions" with teacher/administrator, teacher/counselor or teacher/student, etc. for idea sharing

6. a. Reviewing materials in games and simulation for career education
   b. Developing games and simulation activities for career education
   c. Developing a list of resource persons in your area
   d. Developing audio-visual aids dealing with career education

7. a. Study the area of establishing an advisory or steering committee
   b. Develop a plan for closer workings between school and industry
   c. Evaluation and planning for improvement of communication within the school, and from school to community
   d. Evaluation of community needs

8. a. Reviewing standardized aptitude and interest tests
   b. Developing student aptitude and interest tests
   c. Discussing the aspects of counseling students for careers

9. a. Lecture on history, background and happenings in career education
   b. Doing research in employment and labor market statistics
   c. Doing research in the area of job requirements and changes

10. a. Writing individualized goals and objectives
    b. Preparing an individualized bibliography
    c. Reviewing and/or developing techniques for self-evaluation

11. a. Formulating guidelines for resource persons and trips
    b. Study and/or develop curriculum for the handicapped or disadvantaged
    c. Creating a model or curriculum segment for utilizing current events
    d. Detailed examination of clusters and jobs contained in them.

IV. Occupational Survey

Please list, by title, all the occupations you have had for gainful employment. Include such titles as babysitter, busboy, mailclerk, etc.

CAREER EDUCATION

PRE-TEST

1. Which of the following societal conditions gave the LEAST impetus to the development of career education?

   a. excess of graduates for existing jobs
   b. younger, stronger work force
   c. changes in jobs in one's liftime
   d. 80% of jobs don't require college education

2. Which of the following objectives is NOT one of the six major learner objectives specified by the Arizona State Department?

   a. continuing to increase interests and achievement in basic subject areas
   b. understanding the world of work and its impact on life in our society
   c. acquiring a job upon exiting high school that is fitted to one's interest and abilities
   d. achieving an increased awareness of "self" by developing an understanding of interests and aptitudes.

3. The following is a well formed objective. Place brackets around and then label each of the four criteria present:

   The learner will be able to arrange, in writing, eight given samples of metal according to the position in the periodic table, beginning with the lowest, within one minute.

4. Circle the letter in front of the four principles proven to be of considerable utility to those involved in the development of curriculum materials:

   a. make it interesting
   b. state the objective to the learner
   c. provide knowledge of results
   d. provide relevant practice
   e. keep the learner actively involved
   f. avoid the inclusion of irrelevancies
   g. individualize the activities to the learner's needs

5. Which of the following is NOT a domain of learning?

   a. affective
   b. cognitive
   c. psychomotor
   d. sociological

6. Label on the black lines each term according to its placement in one of the three domains.

   a. respond _____ domain
   b. analysis _____ domain
   c. imitation _____ domain
   d. evaluation _____ domain
   e. organization _____ domain

7. Label each description as M-L for Mini-lesson or IU for Instructional Unit.

   _____ a. a single instructional activity
   _____ b. composed of several lessons
   _____ c. infuses regular curriculum
   _____ d. could be an addition or replacement for regular curriculum

8. Which of the following is NOT a component of the three dimensional models of career development?

   a. job
   b. vocation
   c. awareness
   d. leisure

9. List at least two things a teacher can do to make effective use of media selected for classroom instruction.

   a. _____
   _____
   b. _____
   _____

10. Which of the following is NOT an interest survey?

   a. SVIB
   b. Kuder Form E
   c. What I Like To Do
   d. Iowa Test of Interests

CLASS OVERVIEW/EXPECTATIONS

INTRODUCTION

Career Education has existed in a variety of forms since the early 1900's. Perhaps there is more agreement about what career education is not than what it is; it is not vocational education, it is not something taught and learned in isolation, it is not the responsibility of a single functionary in the schools.[1] Career education combines the academic world with the World of Work. It must be available at all levels of education from the kindergarten through the university. A complete program of career education includes: Career Awareness, learning about self and the broad world of work; Career Orientation, orientation to occupational groupings and associated life styles; Career Exploration, in depth occuptational exploration and the associated entry level skills and knowledge; and Career Preparation, entry level competency or prerequisites for further education or preparation for career advancement.

PURPOSE

The purpose of this course is to develop an understanding of the roles, interrelationships, concepts, and cooperation needed by classroom teachers to integrate Career Education into the instructional programs of all levels.

OVERVIEW

The class is composed of twelve sessions. Each session builds upon previous sessions and lays the foundation for future sessions. The semester content is composed of the following:

Session one (date)	Background and Rationale of Career Education
Session two (date)	Developmental Level Outcomes for Career Education
Session three (date)	Constructing Objectives to Meet Outcomes
Session four (date)	Developing Content Consistent With Objectives
Session five (date)	Evaluating and Assessing Student Behavior
Session six (date)	Implementing Varied Instructional Behavior

[1] *Orienting Prospective Teachers to Career Education*, Arizona State Department of Education.

Session seven (date)	Developing Mini-Units
Session eight (date)	Focus on Affective Career Education/ Preparation for Field Experience
Session nine (date)	Field Experience
Session ten (date)	Follow-up of Field Experience/ Utilizing Community Resources
Session eleven (date)	Guest Speaker Preparation/ Identifying Interest Through Testing
Session twelve (date)	Culmination Activities

EXPECTATIONS

Each session is developed so that the instructional sequence is followed by small group/individual work. This work session is designed to give the participants class time in which to practice and then attain each of the stated objectives. Many of the work sessions are developed around the unit or instructional sequence being written by the participants. Each participant is expected to develop an instructional unit appropriate for the grade level taught. This unit must meet the criteria established in session four. In addition each participant is expected to attain the objectives of each stated lesson.

Discussion Sheets 1-4

A NEED FOR CHANGE

1. Eighty percent of our present jobs don't require a college degree.

Many students have educational preparation in excess of what they actually need in order to secure and maintain a job in our present society. Why are most courses geared toward college prep when more than 80% of the existing and forseeable careers do not require a college degree?

Time magazine discussed this problem in the May 24, 1971 issue:

"A number of education experts argue that the U.S. has become an overtrained society, producing too many specialists for too few jobs. Every year, more and more people enter colleges or universities; in fact, the number of American students currently exceeds the entire population of Switzerland. Yet 80% of all jobs available in the U.S. are within the capabilities of those with high school diplomas."

The U.S. Commissioner of Education, Sidney Marland, has discussed:

"this damaging stigma that attaches to pursuits of careers that do not involve college training. There can be little doubt that his stigma has caused too many students to drift aimlessly into college when they could have been spending their time more usefully training for other pursuits. This drift has several undesirable effects. It may discourage the individual from developing his or her best talents or skills. It denies needed talents and skills to the economy.

"The presence of aimless students on college campuses dilutes the efforts of the colleges to provide first-rate education to those students with a genuine academic bent."[1]

2. Deflating value of the diploma.

A year ago *Time* magazine (May 24, 1971) published an article entitled "Graduates and Jobs: A Grave New World." The article discussed the graduating class of 1971 and stated:

"The largest graduating class in history, an educated army of 816,000 is entering America's certified credential society and learning to its sorrow that a degree is no guarantee of a suitable job. Like a dollar, the diploma seems to have been devalued."

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[1] Marland, Sidney, quoted in *Career Education*, Wall Street Journal, Editorial Page, week of September 13, 1971.

Many students have excess preparation for work. Commissioner Marland has discussed the deflating value of a diploma:

"Fully half of all high school students enroll in college after graduation. Superficially that sounds fine. But too many take this step, I fear, because a pernicious conformism inflicting our society forces them to flock to campuses to get credentials many really don't need or, at least, shouldn't get. Given the inflexible law of supply and demand, the flood of bachelor's degrees has inevitably reduced their value as an entree to a good, professional job primarily because there simply aren't that many jobs in the American economy that require a college education."[2]

It has even become a kind of upper class ideal in this country for the boy or girl to put off thinking about a possible occupation until after completion of the baccalaureate degree which, by the time it is earned, may well be a surplus item. There is an excess of such degrees now in the aerospace industry and in certain parts of the teaching profession, and The National Planning Association predicts eventual excess of bachelor's degrees in every field except the health professions.

The article "BA+MA"PHD=0" in *Saturday Review*, March 21, 1970 states:

"Suddenly, college degrees don't seem to be worth much any more. At a time when colleges are opening their doors even wider for students who would not have been admitted a few years ago, there are widespread reports of the difficulty degree-holders of all ranks are having in finding jobs, or at least of their first choice in some areas.

"The College Placement Council has just released a survey of job offers from business and industry at 141 colleges and universities during the fall term showing that offers to BA degree candidates were down 20 percent from last year and down 24 percent to MA degree candidates.

"To charge that college education has been overemphasized to the extent that those youth who do not pursue it are often considered "second class" is not a denigration of the values of a college education for those who want it. Neither is it an intimation that a college education's only worth is its job preparation role. It is a plea for acceptance of a

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[2]Marland, S. P., "Educating For The Real World," Address to the Jefferson County Chamber of Commerce, May 26, 1971.

greater variety in life styles and in types of career preparation. It also represents a conviction that college itself would be more meaningful if it were not considered a hurdle to be gotten to and through as soon as possible."[3]

3. Changes in jobs in the lifetime: constantly new and obsolete jobs.

Many students have limited preparation for our current work structure. They do not have the knowledge and skills which will help them adjust to changes in jobs. *"The human organism normally changes occupational modes no less than three to five times during its work life."*[4] "Though when we speak of new occupations it is always useful to remind ourselves that even some of the newest, such as computer programming, for example, will very likely be obsolete in 20 years or so, affirming once again the need for a sound educational base underlying all specific skill training."[5]

Alvin Toffler in his book, *Future Shock*, discusses this change of jobs and new and obsolete jobs. The following excerpts from *Future Shock* are readings which predict the future and how it will affect the education of young people:

"For the introduction of advanced technology, whether we call it automation or not, is necessarily accompanied by drastic changes in the types of skills and personalities required by the economy.

"Specialization increases the number of different occupations. At the same time, technological innovation reduces the life expectancy of any given occupation. 'The emergence and decline of occupations will be so rapid,' says economist Norman Anon, an expert in manpower problems, 'that people will always be uncertain in them.' *The profession of airline flight engineer, he notes, emerged and then began to die out within a brief period of fifteen years.*

"A look at the 'Help Wanted' pages of any major newspaper brings home the fact that new occupations are increasing at a mind-dazzling rate. Systems analyst, console operator, coder, tape librarian, tape handler, are only a few of those connected with computer operations. Information retrieval,

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[3]Hoyt, Evans, Mackin, Mangum, *Career Education*, Olympus Publishing Co., 1972, p. 30.

[4]"Career Development - Local Education Agency," August, 1971.

[5]Marland, Sidney, "Career Education Now," Address to the 1971 Convention of the National Association of Secondary School Principals, January 23, 1971.

optical scanning thin-film technology all require new kinds of expertise, while old occupations lose importance or vanish altogether. *When Fortune Magazine in the mid-1960s surveyed 1,003 young executives employed by major American corporations, it found that fully one out of three held a job that simply had not existed until he stepped into it.* Another large group held positions that had been filled by only one incumbent before them. Even when the name of the occupation stays the same, the content of work is frequently transformed, and the people filling the jobs change.

"'Under conditions prevailing at the beginning of the 1960s,' states another Labor Department report, 'the average twenty-year old man in the work force could be expected to change jobs about six or seven times.'

"*A recent study reveals that job turnover rates for scientists and engineers in the research and development industry in the United States are approximately twice as high as for the rest of the American industry.* The reason is easy to detect. This is precisely the speartip of technological change--the point at which the obsolescence of knowledge is most rapid. At Westinghouse, for example, it is believed that the so-called 'half-life' of a graduate engineer is only ten years--meaning that fully one half of what he has learned will be outdated within a decade.

"For education the lesson is clear; its prime objective must be *to increase the individual's 'cope-ability'--the speed and economy with which he can adapt to continual change.* And the faster the rate of change, the more attention must be devoted to discerning the pattern of future events.

"It is no longer sufficient for Johnny to understand the past. It is not even enough for him to understand the present, for the here-and-now environment will soon vanish. *Johnny must learn to anticipate the directions and rate of change.* He must, to put it technically, learn to make repeated, probabilistic, increasingly long-range assumptions about the future. And so must Johnny's teachers.

"To create a super-industrial education, therefore, we shall first need to generate successive, alternative images of the future--assumptions about the kinds of jobs, professions, and vocations that may be needed twenty to fifty years in the future."

STUDY EXERCISE

Section A: Conditions in Society

Directions: Place and "X" on the line in front of the statements which are indicators that our educational system is not adequately meeting the needs of society.

_____ 1. Education is not receiving proper funding to graduate qualified job applicants.

_____ 2. The diploma is deflating in its value due to an excess of graduates for existing jobs and yet students are pressured to go to college.

_____ 3. People often need to change jobs in a lifetime, sometimes three or four times. Often they are not prepared to do this.

_____ 4. Most high school students seek full-time employment immediately upon graduation because it is one of society's ideas and is emphasized throughout high school.

_____ 5. Most jobs these days require a minimum of two years of college education but students are urged to go four years to college.

_____ 6. Many of our high school students are in a college prep curriculum, although 80% of the jobs available do not require a college education.

Study Exercise Answer Key

Section A: Conditions in Society

_____ 1. Explanation - Education is graduating many students who are overtrained particularly at the college level. High school students are enrolled in college prep courses although most job vacancies require other training.

__X__ 2. Explanation - Note the number of college graduates who must take jobs outside of or below their level of training.

__X__ 3. Explanation - Advanced technology is accompanied by changes in types of skills and personalities required by the economy.

_____ 4. Explanation - Most high school graduates are encouraged to go to college.

_____ 5. Explanation - Most jobs require a minimum of high school education.

__X__ 6. Explanation - This has been identified as one of the most serious weaknesses of our educational system.

SESSION TWO

GOAL STATEMENT

To identify the various career education outcomes at each developmental level.

INSTRUCTIONAL OBJECTIVES

1. *The participants will list career education concepts which they believe are crucial to their course of study.*

2. *Given career education concepts appropriate for their grade levels the participants will list possible activities around which an instructional lesson may be developed.*

LESSON TIME

Instruction and practice:	2½ hours
Reading time to review materials distributed:	½ hour

PREREQUISITE SESSIONS

None

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Transparency Masters: *Major Objectives of Career Education* Worksheet/Information Sheet Masters: *Career Education Concepts*	Butcher paper Felt tip pen (12) Overhead projector and screen

Instructor Preparation Tasks

1. Duplicate for each participant:
   Career Education Concepts

2. Prepare transparency of:
   Major Objectives of Career Education

3. Secure overhead projector and screen.

Instructional Procedures

INTRODUCTION

The Arizona State Department of Education suggests that Career Education offer three goals:

1. Learning to Live - Career Education is not restricted to learning a vocation; in fact, the work week is growing shorter, while leisure time is growing larger and more important. Career Education means the development of self-awareness of one's leisure time, career, and life in general.

2. Learning to Learn - Basic school subjects have been taught in a vacuum. Students have continuously asked "why must I learn this" and "how will it help me." Sadly, these questions have either fallen on deaf ears, or the person questioned was simply unable to answer. Career Education doesn't intend to ignore the three R's, but instead plans to couch them in a new frame of reference that helps the learner understand their critical relevance to the world of work and the world of leisure.

3. Learning to Make a Living - This means that Career Education intends to prepare individuals so that they possess an awareness of their capabilities, at least to the point of being economically self-sufficient and productive members of society. In other words, students should possess employability skills when they exit our schools so that they can either 1) secure a job, or 2) decide through broad career awareness and decision-making skills to continue with technical training or a 4-year baccalaureate program.

Career Education is intended to accomplish the three preceding goals, but does not plan to do so at the expense of everything that has gone before. There is much that is good about the present curriculum, and Career Education has no intention of

replacing it. However, the present curriculum is inadequate in two ways: 1) it is fragmented instead of unified, and 2) it is irrelevant rather than relevant.

The curriculum must be unified and not fragmented. Presently, courses such as history, math, language, etc. are taught as isolated bodies of knowledge, with little emphasis going to practical applications. This situation not only makes the curriculum irrelevant for many students but also fragmented. Because of this condition of the curriculum, many students, parents, and even educators are asking "Why?" or "Of what value is it?" of the curriculum and education in general.

Students, whether bound for college, technical school, or a job, should be going to school for the same purpose: to help them get where they want to go, and to become what they want to become. But the schools have not been serving this purpose satisfactorily due to fragmentation and irrelevancy.

One way of making the curriculum *relevant*, and *unfied* is to tie it all together with a relevant theme or core. Career Education can, and should be, that central theme. To use the analogy of a common, everyday rope, as each strand of our curriculum (math, science, etc.) weaves around the core (Career Education), the total effort becomes stronger, more relevant and unified, and therefore more real and meaningful to the student.

The Arizona State Department of Education has specified six major learner objectives to be accomplished by all students by the time they complete a Career Education Program.

(Display and discuss transparency entitled, *Major Objectives of Career Education.)*

Distribute *Career Education Concepts*. Discuss the six areas into which the concepts have been grouped:

Role of Work in Life and Society
Nature of the World of Work
Work Values
Education and the World of Work
Career Development and Decision Making
Work Habits

(Divide the class into grade level groups and instruct them to review each area. Instruct each group to list the concepts they feel should be introduced or taught at their grade level. Then instruct the groups to identify at which point in their curriculum would they teach for this concept. In other words, they should list the unit title, or chapter, or regular curriculum area into which they might integrate or infuse each concept.

Ask each grade level to write the concepts on a piece of butcher paper and place in front of the class.)

Spend time to review each group's contribution noting from which areas the concepts seem to be taken, and where in the existing curriculum they are most readily integrated. Review the lists to determine if any concepts seemed to appear at each developmental level K-3, 4-6, 7-9, 10-12.

Compare these findings to those outcomes that have been identified by educational experts.

Grades K-3

Expanding the perceptual base of children in selected aspects of self, work, and leisure.

Activities that help children discover who they are, and how they are different from and like others.

School and home are places where they learn to relate to adults and children.

Students are workers, school is their place of work.

Role of workers in the home.

Explore the surrounding community.

Nature of work, what kinds of work, where and why.

Grades 4-6

Successive learning experiences which expose students to self, work, leisure, career planning.

Subtle differences in the meanings people attach to work and leisure may now become apparent.

Compare themselves to others in interest and ability.

Relationships between career, career planning, and education.

Grades 7-9

Build on previously acquired concepts and form generalizations.

Elements which influence career decision making.

Purposes and types of educational opportunities.

Status of their career planning.

Knowledge of wide range of occupations.

Differentiates himself from parents and peer groups, looking at values, beliefs, aspirations and interests.

Grades 10-12

There is no sharp line of demarcation between the early years of senior high school and the latter years of the junior high. Consequently the goals of career education are modified gradually from grades seven to ten. The direction toward which these move is one of greater specificity, as the student learns more about himself or herself, more about the world of work and more about the relationships between the two. By the time the student leaves high school he/she should:

a. have a knowledge of the value of work in society

b. have acquired a personal set of work values

c. have decided on one or two areas of occupational interest

d. know a variety of ways in which various school subjects are of value in the career areas of interest

e. have a salable skill

f. know where and how additional training and experience can be acquired.

(Instruct the participants to group themselves by the grade levels or subject areas they teach. They should select a concept at their level and brainstorm activity ideas that they could use in their classrooms. Suggest to the participants that they want to record this information as it may assist them during the next session.)

SUMMARY

The participants have been introduced to a variety of career education concepts. These concepts were then grouped according to their applicability to each developmental level. These were then compared with the findings of the educational researchers on career education. The participants then brainstormed activity suggestions relating to concepts appropriate at their grade levels. This task will facilitate their work during the next session when they begin to develop objectives for attaining career education outcomes.

Time should be provided during this session to allow the participants to review the handbooks previously distributed.

DEBRIEFING

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before the debriefing sessions should:

1. Identify points of concern
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise.
5. Identify additional topics the group wants to study

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CAREER EDUCATION CONCEPTS

Concepts Related to the Role of Work in Life and Society

(1) Occupations exist for a purpose.
(2) Every occupation contributes to society.
(3) People need to be recognized as having dignity and worth.
(4) Trained, experienced, productive workers are more useful and more in demand than untrained, inexperienced, or nonproductive workers.
(5) Occupations and life styles are interrelated.
(6) Job satisfaction is dependent on harmonious relationships between a workers and his work environment.
(7) The economic system structures incentives for man to work.

Concepts Related to the Nature of the World of Work

(1) People have many kinds of careers.
(2) Some workers produce goods; others produce services.
(3) There is a wide variety of occupations that may be classified in several ways.
(4) Any career area has different levels of responsibility.
(5) The customs, traditions, and attitudes of society affect the world of work.
(6) Technological developments cause a continual change in the emergence and disappearance of jobs.
(7) Job specialization creates interdependency.

Concepts Related to Work Values

(1) People pursue careers for many reasons.
(2) Work that is enjoyed by some people is disliked by others.
(3) Work means different things to different people.
(4) Generally, those workers who are trained, experienced, and productive find their work satisfying.
(5) Occupations and life styles are interrelated.
(6) Every person develops a personal "style" which he can fulfill in a career with a similar "style".
(7) The individual's perception of his environment affects his attitudes toward work.

Concepts Related to Education and the World of Work

(1) Education and work are interrelated.
(2) Careers require different knowledge, abilities, aptitudes.
(3) Basic education enhances job performance.
(4) There are both specific and general knowledges for each career area.
(5) There are many training routes to job entry.
(6) People change and sometimes change careers, as they go through life.
(7) Knowledge and skills in different subjects relate to performance in different work roles.

Concepts Related to Career Development and Career Decision Making

(1) Evéry individual can have a meaningful, rewarding career.
(2) Every person is an individual with different values and attitudes.
(3) A person's best career direction develops over a long period of time.
(4) A person may be suited for several different careers.
(5) Environment and individual potential interact to influence career development.
(6) Hobbies and interests may lead to a vocation.
(7) Occupational supply and demand has an impact on career planning.
(8) Different occupations are interrelated in many ways.
(9) Individuals can learn to perform adequately in a variety of occupations.
(10) Career development requires a continued and sequential series of choices.
(11) People must adapt as the world changes.
(12) The choice of a career usually involves a compromise between greater and lesser needs.

Concepts Related to Work Habits

(1) A person's relationships with other people, with his employer and with society affect his own career as well as the career of others.
(2) There are identifiable attitudes and behaviors which enable one to obtain and hold a job.
(3) Any career has different levels of responsibility.

MAJOR OBJECTIVES OF CAREER EDUCATION

THE ARIZONA STATE DEPARTMENT OF EDUCATION HAS SPECIFIED SIX MAJOR LEARNER OBJECTIVES TO BE ACCOMPLISHED BY ALL STUDENTS BY THE TIME THEY COMPLETE A CAREER EDUCATION PROGRAM. THE SIX OBJECTIVES ARE:

1. ACHIEVING AN INCREASED AWARENESS OF "SELF" BY DEVELOPING AN UNDERSTANDING OF INTERESTS AND APTITUDES.
2. UNDERSTANDING THE WORLD OF WORK AND ITS IMPACT ON LIFE IN OUR SOCIETY.
3. MAKING INTELLIGENT DECISIONS IN ACHIEVING PLACEMENT UPON GRADUATION FROM HIGH SCHOOL.
4. DEMONSTRATING A "SALABLE SKILL" UPON EXITING FROM HIGH SCHOOL.
5. CONTINUING TO INCREASE INTERESTS AND ACHIEVEMENT IN BASIC SUBJECT AREAS.
6. DISPLAYING A POSITIVE ATTITUDE TOWARD THE WAY CAREER EDUCATION HAS AFFECTED THEIR LEARNING TO LIVE, LEARNING TO LEARN, AND LEARNING TO MAKE A LIVING.

SESSION THREE

GOAL STATEMENT

To construct instructional objectives which contain the four major criteria: subject, verb, conditions, and standards.

INSTRUCTIONAL OBJECTIVES

1. *The participants will identify the presence and/or absence of the four major characteristics (or criteria) of a well-formed objective, given a variety of sample statements of instructional objectives.*

2. *Given ill-formed objectives, the participants will revise them to contain the four major criteria.*

3. *Given a goal statement, the participants will construct at least three well-formed objectives to meet the goal.*

LESSON TIME

Instruction and practice: 1 hour 45 minutes

Individual goal and objective writing: 1 hour 15 minutes

PREREQUISITE SESSIONS

None

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Worksheets: *Exercise Sheet* *Exercise Sheet Answer Key* *Constructing Objectives to Meet Goals* *Lesson Posttest* *Lesson Posttest Answer Key* Transparency Master: *Revising Ill-Formed Objectives*	Arizona State Career Education Matrix Overhead Projector and screen

INSTRUCTOR PREPARATION TASKS

1. Duplicate one copy of each worksheet for each participant:

   Exercise Sheet
   Constructing Objectives to Meet Goals

2. Prepare transparency of *Revising Ill-Formed Objectives.*

3. Acquire for each participant one copy of the Arizona State Matrix from the Research Coordinating Unit of the Arizona State Department of Education.

4. Suplicate the Session Posttest for each participant.

INSTRUCTIONAL PROCEDURES

INTRODUCTION

Many educators contend that the single most important instructional advance in recent decades is today's quest for clarity in the statement of educational outcomes. More than at any previous time in educational history, educators are now being urged to clarify their descriptions of the outcomes they hope to achieve through instructional effort. This session will focus in greater depth on the criteria utilized to develop the statement of objectives.

What are the characteristics of a well-formed educational objective? The terminology may vary from author to author, but basically well-formed objectives include four components:

1. A subject: the learner
2. A verb: the performance, product, or action
3. Given condition: the situation in which the behavior occurs
4. Standards: of quality or quantity

TASKS

Distribute *Exercise Sheet.*

Ask the students to place a check beside the number of each item in Section A which specifies it is the learner who is expected to meet the objective. The first criterion of a well-formed objective is a statement of the learner.

Discuss the correct responses referring to the *Exercise Sheet Answer Key.*

Explain to the class that the second criterion of a well-formed objective is a statement of the verb. The verb in a well-formed objective describes a behavior or a product of a behavior. A behavior is any learner performance, action, or operation which is observable. A behavior describes "what the learner does." The verb answers the question, "What does the learner do?" in terms of behavior.

Ask the students to refer to Section B of their *Exercise Sheet* and to check those verbs that describe behavior or products that can be observed.

Discuss the correct responses referring to the *Exercise Sheet Answer Key*.

Ask the students to look at Section C of their *Exercise Sheet* and place a check beside the number of each item which exhibits both criterion 1 and criterion 2, a statement of the learner and an observable verb.

Discuss the correct responses referring to the *Exercise Sheet Answer Key*.

Explain that a well-formed objective defines a behavior to be performed by a learner under conditions that are mutually understood by the learner and the person who is to evaluate the behavior. In many educational settings, these conditions are well established by tradition, practice, and the nature of the task involved. In such cases, the third criterion of a well-formed objective need not be explicitly stated. Given conditions may be expressed in either negative or positive terms. For example, "Given a flow chart..." or "Without the use of any references..."

Ask the students to look at Section D on their *Exercise Sheet* and place a check beside the items which present an instructional objective containing: a subject, a verb, and the given conditions.

Discuss the correct responses referring to the *Exercise Sheet Answer Key*.

The final element of a well-formed objective is the specification of the minimal acceptable level of learner performance. What degree of accuracy must be attained? What percentage of the items must be identified? Answers to questions such as these are standards. Standards may be stated in various ways, all of which are reducible to quality, quantity, or in some cases, time.

Ask the students to look at Section E of their *Exercise Sheet* and place a check beside each item that contains the four criteria of a well-formed objective.

Discuss the correct responses referring to the *Exercise Sheet Answer Key*.

Instruct the class to assemble themselves in groups of three to four.

Place transparency entitled *Ill-Formed Objectives* in view of the participants. Instruct each group to revise the objectives to include the four major criteria.

Have each group share their responses.

Explain to the group that objectives are usually constructed toward some end, or goal.

To illustrate this point, tell the class what the goal of this session is--To construct objectives that contain the four major criteria.

Before this can be accomplished, certain behaviors, performances, or skills are necessary. These behaviors, performances, or skills were identified and constructed as performance objectives. Thus the objectives designed to meet the goal are small steps of behavior, i.e.,

1. The participants will identify the presence and/or absence of the four major characteristics (or criteria) of a well-formed objective, given a variety of sample statements of instructional objectives.

2. Given ill-formed objectives, the participants will revise them to contain the four major criteria.

3. Given a goal statement, the participants will construct at least three well-formed objectives to meet the goal.

Distribute worksheets entitled *Constructing Performance Objectives to Meet Goals* to each group.

Instruct the class to develop with their groups at least three performance objectives to meet each goal. Have them write the goal and their objectives on the board.

Critique and discuss each group's contribution.

SUMMARY

Distribute copies of the Arizona State Career Education Matrix.

Instruct the participants to review the goals and suggested objectives for their developmental level, keeping in mind that they will write a goal statement and at least four objectives

to meet that goal. This will constitute the framework for our instructional unit.

Allow one hour and fifteen minutes for this task.

Explain to the class that this session provided them with skills to begin writing a unit of instruction that they could use in their classrooms. Next session will concentrate on filling in the details, or content, of their instructional sequence.

DEBRIEFING (Should follow the participant's review of materials)

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before the debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

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Vargas, J. S. *Writing Worthwhile Behavioral Objectives.* New York: Harper and Row, Publishers 1972.

EXERCISE SHEET

Section A: Identifying the Learner

Place a check beside the number of each item which specifies it is the learner who is expected to meet the objective.

1. _____ The student can name five career clusters into which occupations can be categorized.

2. _____ Each member of the class will construct a working model of a pulley.

3. _____ To cover the concept of "leisure time" in the first lecture.

4. _____ The teacher will instill in each student a respect for workers.

Section B: A Verb: Performance or Performance Product

Place a check beside the number of each verb that describes an observable or identifiable behavior.

1. _____	perceive	6. _____	identify
2. _____	appreciate	7. _____	grasp
3. _____	name	8. _____	describe
4. _____	understand	9. _____	interpret
5. _____	order	10. _____	construct

Section C: Describing Objectives

Place a check beside the number of each item which exhibits both criterion 1 and 2.

1. _____ The child will learn how to complete a job application form.

2. _____ The pupil will play 3/4 rhythm on the tamborine.

3. _____ The form of Roman architecture will be identified.

4. _____ The learner will order occupations according to their educational requirements.

EXERCISE SHEET (CONTINUED)

Section D: Identifying the Three Criteria

Place a check beside the number of each item which presents an instructional objective containing a subject, verb, and given conditions.

1. _____ The learner will be able to write a paragraph of 100 words or less with the use of a dictionary.

2. _____ The student will construct a model of the house which the class saw on the field trip. The model must be done from memory.

3. _____ To reveal one's comprension of the fifteen career clusters.

4. _____ Each child will list his interests.

Section E: Well-Formed Objectives

Place a check beside the number of each item which meets the four criteria of a well-formed objective.

1. _____ To appreciate various cultures of the world and to understand his responsibilities and opportunities as a citizen of the world living in a democracy.

2. _____ The student will construct an observational instrument for recording events on a field trip.

3. _____ The pupil will solve nine out of ten equations containing two unknowns. The equations must be solved within twenty seconds.

4. _____ The learner will be able to arrange, in writing, eight given samples of metal according to the position in the periodic table, beginning with the lowest, within one minute.

Exercise Sheet Answer Key

Section A: Identifying the Learner

1. Who does the naming? The student. This meets the first criterion of a well-formed objective.

2. "Each member of the class" is synonymous with what a learner would do. This objective satisfies the first criterion.

3. Who would cover the concept? Not the student. This behavior describes what the teacher will do. This is not, therefore, a well-formed objective.

4. The objective describes what the teacher does, not the student; thus, it should not have been checked.

Section B: A Verb: Performance and Performance Product

1.	_____ perceive	6.	__X__ identify
2.	_____ appreciate	7.	_____ grasp
3.	__X__ name	8.	__X__ describe
4.	_____ understand	9.	_____ interpret
5.	__X__ order	10.	__X__ construct

Section C: Describing Objectives

1. Not checked. Criterion 2 is not exhibited. The verb is ambiguous.

2. Checked. This objective meets the two criteria.

3. Not checked. This statement does not tell who will be the learner making the response. It is not a well-formed objective.

4. Checked. This objective meets the two criteria.

Section D: Identifying the Three Criteria

1. Checked. The first three criteria of a well-formed objective are present. The condition explicitly stated is the available dictionary.

2. Checked. This is acceptable. The first two criteria are present, and "from memory" is an explicit condition.

3. Not checked. None of the three criteria are present.

4. Not checked. No statement describing the situation in which the behavior occurs is present.

Section E: Well-Formed Objectives

1. Not checked. The learner is not designated, nor are the standards. The verb is ambiguous.

2. Not checked. No standards are given.

3. Checked.

4. Checked.

Revising Ill-Formed Objectives

In groups revise each of the following objectives to meet the four criteria of a well-formed objective.

1. The student should develop an appreciation of the importance of birds in maintaining a balance of nature.

2. The student will be able to portray the unique capabilities and training required in occupations.

3. To evaluate several potential career choices in terms of the standard of living he or she would like to attain.

4. The child will be able to demonstrate an appreciation of the special skills, working habits, and satisfactions typical of an occupation.

5. The student will be able to articulate numerous aspects of the concept of the dignity of work.

6. Enumeration of some significant effects of advances in technology on the quality of life will be discussed.

Constructing Objectives To Meet Goals

To realize that every career requires some special preparation.

To understand that every person is an individual with different abilities, interests, needs, and values.

To understand that every occupation contributes to society.

To realize that there are identifable attitudes and behaviors which enable one to obtain and hold a job.

SESSION POSTTEST

1. List the four criteria of a well-formed objective.

   a. _____

   b. _____

   c. _____

   d. _____

2. Revise the following objective to contain the four major criterion.

   a. The student can name five career clusters into which occupations can be categorized.

3. Write two performance objectives that may be used toward achieving this goal statement: The student will understand the variety of occupations found in the world of work.

SESSION POSTTEST ANSWER KEY

1. List the four criteria of a well-formed objective.

   a. A subject: the learner

   b. A verb: performance product

   c. Given conditions: the situation

   d. Standards: quality or quantity

2. Revise the following objective to contain the four major criterion.

   a. The student can name five career clusters into which occupations can be categorized.

      Sample response: Given ten occupational titles, the learner will categorize them into five clusters and label each cluster. The group should contain the two titles which are included in that cluster.

3. Write two performance objectives that may be used toward achieving this goal statement: The student will understand the variety of occupations found in the world of work.

   Sample objectives:

   a. Given an occupational work setting, the student will list at least three occupations found there.

   b. Given a familiar commodity, the student will list and describe the sequence of occupations involved in the production and distribution of the product.

SESSION FOUR

GOAL STATEMENT

To develop content appropriate for attaining objectives directed toward a specified goal.

INSTRUCTIONAL OBJECTIVES

1. *Given sample activities, the participants will identify examples of student activities which provide appropriate practice of the stated objective.*

2. *Given sample activities, the participants will identify examples of teacher behavior which illustrates immediate knowledge of results.*

3. *Given format specifications and criteria of an instructional sequence, the participants will develop a lesson incorporating said criteria for each of the performance objectives previously written.*

LESSON TIME

Instruction: 1 hour 45 minutes

Individual lesson development: 1 hour 15 minutes

PREREQUISITE SESSIONS

Session Three; participants will develop content for the objectives written in Session Three.

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Transparency Masters: *Developing Content* *Avoiding Irrelevancies* *Make It Interesting* Worksheet Masters: *Appropriate Practice Answer Sheet* *Self-Check: Knowledge of Results* *Content Criterion Checklist* *Lesson Format*	Filmstrip: Appropriate Practice Vimcet Associates, Inc. P.O. Box 24714 Los Angeles, California 90024 Overhead projector Filmstrip projector Screen

Instructor Preparation Tasks

1. Prepare transparencies:

   Developing Content
   Avoiding Irrelevancies
   Making It Interesting

2. Duplicate for each participant one copy of each worksheet:

   Appropriate Practice Answer Sheet
   Self-Check: Knowledge of Results
   Content Criterion Checklist
   Lesson Format

3. Secure overhead and filmstrip projectors and screen.

4. Secure filmstrip, "Appropriate Practice."

Instructional Procedures

INTRODUCTION

After the objectives for a particular instructional lesson have been determined, the question of what the learner ought to do in order to achieve these objectives remains. In other words, what activities need to be planned to promote the attainment of the instructional objectives? Four principles will be discussed in this session which have proved to be of considerable utility to those involved in the development of instructional products. (Show transparency entitled *Developing Content*.) Specifically, the principles are:

1. Provide relevant practice for the learner.
2. Provide knowledge of results.
3. Avoid the inclusion of irrelevancies.
4. Make the material interesting.

TASKS

(View filmstrip entitled *Appropriate Practice*. Distribute *Appropriate Practice Answer Sheet*.)

(This filmstrip is designed to provide the participants with information that will assist them in the selection of learning activities that are likely to lead to the attainment of instructional goals. By the end of the program, the participants when given objectives will be able to write out learning activities that are consistent with the objectives.)

(Discuss the following with the class):

In addition to providing for appropriate practice, the learner should be provided with knowledge of results. There is little doubt that one of the best ways to have a learner acquire an intended behavior is to give him opportunity to practice appropriately the intended behavior. But we must also provide him with an opportunity to judge whether his practice behaviors are correct. We must, in other words, provide him with knowledge of results regarding his responses during the practice.

One important feature of the knowledge of results principles is the immediacy with which it is used. If students in a math class are given homework exercises which they solve between 8 and 10 p.m. but must wait twelve hours (until the next day's math class) before finding out whether their practice is correct, knowledge of results is not being used. The teacher should have sent home a sheet with the correct answers on it so students could check their practice work right away.

(To give the participants practice in assessing their understanding of knowledge of results distribute the worksheet entitled *Self Check: Knowledge of Results.* Allow time for the participants to respond to the examples, then discuss each using the *Self Check Answer Key.)*

(Continue the discussion by mentioning the following:)

The third principle to bear in mind when developing content is *Avoid the Inclusion of Irrelevancies.* Basically this is saying if you want the student to learn something specific, don't muddle his mind with unrelated information or activities. In other words, the activities should allow the student to practice the behaviors specified in the objective, and not concentrate on other behaviors.

(Display and discuss transparency entitled *Avoiding Irrelevancies.)*

The fourth principle to bear in mind while developing content is *Make It Interesting.*

What this rule means for the program developer is that he should deliberately design his materials in several identifiable ways to insure that the learner will remain *plugged in* to them.

The key question is how to make the materials interesting while still providing appropriate practice of the objective and avoiding the inclusion of irrelevancies. Several techniques have been identified that do make instructional products more interesting.

(Display transparency entitled *Make It Interesting.)*

Discuss the following:

Ways to vary the lessons include the use of pictures, color diagrams, figures, graphs, and the like. One might also use different types of audio visual presentations such as films, filmstrips, television, records, tapes, and transparencies. The variety can also come through the grouping procedures used. Some aspects of the lesson may involve the total groups, whereas others may have the students working in pairs or in teams.

Humor may be employed in presentation of the information either verbally or pictorially. The exercises the students work may use unusual names or places, nonsense words, or humorous illustrations.

Most people enjoy a game. To employ this strategy, set up rules for a game, then get the learner involved in it. The TV quiz shows provide many ideas for adaptation to a classroom.

Curiosity and the use of suspense relates easily to a game-like setting. The use of clues, or a series of steps to follow, each supplying a piece of the answer are other such examples.

Varying the format may include not only the way information is presented on worksheets but also the delivery style used by the instructor.

SUMMARY

This session provided the participants the criteria to bear in mind while developing content. This includes:

1. relevant practice
2. knowledge of results
3. avoidance of irrelevancies
4. interesting material

The participants will spend the remainder of the class meeting developing lesson content.

Prior to the participants developing content for the objectives they constructed in session four, the session leader should distribute and discuss *Content Criterion Checklist, and Lesson Format.*

Remind the participants that the lessons will be evaluated according to the criteria and format specified.

DEBRIEFING (Should follow the lesson development by participants)

Try to structure the debriefing session in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summaty of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

BIBLIOGRAPHY

Baker, R. L. and Schutz, R. E. *Instructional Product Development*. New York: Van Nostrand Reinhold Company 1971.

Popham, W. J. and Baker, E. L. *Teacher Competency Development System*. Englewood Cliggs, New Jersey: Prentice-Hall 1973. Booklets 10 and 11.

(To Be Used with Filmstrip)

APPROPRIATE PRACTICE ANSWER SHEET

1. A B
2. A B C
3. A B
4. A B
5. YES NO
6. YES NO
7. YES NO
8. YES NO
9. YES NO
10. (EQUIVALENT/ANALOGOUS)
    A _____
    B _____
11. (EQUIVALENT/ANALOGOUS)
    A _____
    B _____
12. (EQUIVALENT/ENROUTE)
    A _____
    B _____
13. (EQUIVALENT/ENROUTE)
    A _____
    B _____
14. (EQUIVALENT/ENROUTE/ANALOGOUS)
    A _____
    B _____
15. (EQUIVALENT/ENROUTE/ANALOGOUS/IRRELEVANT)
    A _____
    B _____
    C _____
    D _____
16. _____
    _____
    _____
    _____
17. _____
    _____
    _____
    _____
18. _____
    _____
    _____
    _____
19. EQUIVALENT:
    _____
    _____
    _____
    _____
    ANALOGOUS
    _____
    _____
    _____

SELF CHECK: KNOWLEDGE OF RESULTS

Read the following descriptions of teacher activity. Decide whether the teacher is using knowledge of results and indicate your answer by placing a *Yes* or *No* in the space provided.

_____ 1. Madame Caron, a French teacher, believes it is important for her students to develop their oral proficiency in the French language. She stresses pronunciation throughout the class. Each time her students speak in class, she is careful to correct any mispronounced words. When the students make no errors, Madame Caron rarely comments.

_____ 2. A teacher in his orchestra class has his students play a given selection, which he records on audio tape. Immediately after the selection is concluded, he plays back the tape and points out areas which need improvement and makes a few suggestions on how certain members of the group could improve their performances.

_____ 3. Mr. Queeg, a history teacher, wants his students to contribute effectively to class discussion. In order to keep the atmosphere of the class light, Mr. Queeg manages a cheery smile and approving comment for each student, even though he notes the quality of the students' responses in his gradebook. Mr. Queeg is undoubtedly the most popular instructor at his school.

_____ 4. The only time a physics teacher ever lets his students know how they're doing in the class is after the semester final examination. At that time, he posts the correct answers on his bulletin board outside the class so that, as students leave, they may confirm which of their exam responses were accurate.

_____ 5. A junior college teacher who is particularly taken with the advantages of "nondirective" instruction leads his classes on an informal discussion basis. He poses frequent questions for his students and when they respond, encourages them to judge the value of their own responses rather than to seek his approval.

SELF CHECK: KNOWLEDGE OF RESULTS ANSWER KEY

Yes 1. The students are provided with immediate knowledge of results. She immediately corrects mispronounced words, a no comment indicates the student was correct.

Yes 2. The recordings are played back immediately, and suggestions for improvement are given.

No 3. Knowledge of results is not given. The instructor overly responds in the same manner to all students regardless of the correctness of their response.

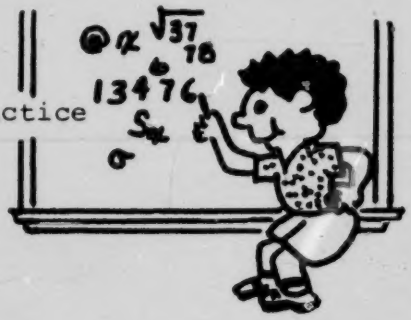
Yes 4. The point in question here is the final exam, which is accompanied by immediate feedback.

No 5. Knowledge of results is not given. Though the students judge the value of their responses, they are never informed to their correctness.

DEVELOPING CONTENT

The following four principles have proved to be of considerable utility to those involved in the development of curriculum materials:

Provide Relevant Practice for the Learner



Provide Knowledge of Results

Avoid the Inclusion of Irrelevancies

Make it Interesting

AVOIDING IRRELEVANCIES

DO NOT TREAT PREREQUISITE BEHAVIORS

ASSUME THE LEARNER HAS MASTERED THE PREREQUISITE BEHAVIOR--IF YOU KNOW THEY HAVEN'T THEN IT SHOULD BE TAUGHT SEPARATELY, AS A LESSON IN ITSELF.

DO NOT INCLUDE "NICE TO KNOW" ITEMS, WHICH IF REMOVED WOULD STILL ALLOW THE LEARNER TO ATTAIN THE OBJECTIVE

BEAR IN MIND, HOWEVER, THE EXCEPTION OF MATERIAL WHICH MAKES IT INTERESTING. IF AN ITEM IS RELATED NEITHER TO THE DESIRED BEHAVIOR NOR TO THE EFFORT TO INCREASE LEARNER INTEREST, THEN IT IS IRRELEVANT AND SHOULD BE OMITTED.

DO NOT HAVE THE LEARNER ENGAGE IN DISTRACTING PROCEDURAL ACTIVITIES

PROVIDE ALL THE NECESSARY MATERIALS AND INFORMATION SO THE LEARNER CAN IMMEDIATELY BEGIN PRACTICING THE DESIRED BEHAVIOR; DO NOT WASTE THIS TIME BY REQUIRING THE LEARNERS TO LOCATE SUPPLIES, EQUIPMENT, MATERIALS, ETC. UNLESS THIS IS THE OBJECTIVE.

MAKE IT INTERESTING

1. Vary the nature of the instructional stimuli

2. Employ humor

3. INVOLVE THE [PICK ONE] IN GAME-TYPE SITUATIONS

IV. Use Suppen~~

5. EMPLOY FORMAT VARIABLES EFFECTIVELY

LESSON FORMAT

TITLE OF LESSON

LESSON NUMBER

GOAL STATEMENT:

INSTRUCTIONAL OBJECTIVES

LESSON PLACEMENT: (GRADE LEVEL, RELATED SUBJECT AREA)

LESSON TIME:

NEW VOCABULARY:

PREREQUISITE KNOWLEDGE:

RESOURCES REQUIRED:

FOUND WITHIN LESSON	TO BE ACQUIRED

INSTRUCTOR PREPARATION TASKS:

INSTRUCTIONAL PROCEDURES:

- INTRODUCTION
- TASKS
- SUMMARY

CONTENT CRITERION CHECKLIST

Please review your lessons to ensure that each of the following items have been attended to.

INSTRUCTIONAL PROCEDURES

Introduction:

1. Does the introduction provide continuity within the unit?

   a. Does the introduction tie the content to previous lessons?

   b. Does the introduction present an overview of the lesson?

2. Is the introduction presented in an interesting, motivating manner? Does each introduction:

   a. make the learner aware of what he is supposed to accomplish as a result of a particular activity?

   b. communicate the objectives of the lesson to the learner in language he can understand?

   c. show the learner the value (the why) of what he is studying? Wherever possible, this should be related to his immediate interests and needs, not remote, long-range possibilities.

Instructor-Learner Tasks:

3. Are the content and activities appropriate to the specified grade level?

4. Is the information presented in the lessons correct and complete?

5. Are the activities

   a. learner, not instructor, oriented?

   b. free from irrelevancies such as prerequisite knowledge and skills, interesting but unrelated information, etc.?

   c. varied to promote learner interest?

   d. presented in small steps and sequenced according to the difficulty of the task?

   e. complete, covering every skill required by the performance objective?

6. Have directions been provided for the use of all resources included in the lesson?

7. Does the lesson provide the learners with knowledge of the results of his performance?

8. Does each lesson have a title of approximately 3-6 words which reflects the content of the lesson?

9. Does the performance objective reflect the goal statement?

10. Is the grade and/or related subject area indicated?

11. Has the amount of time required to teach the lesson been estimated as accurately as possible?

12. Are all New Vocabulary words listed and defined?

13. Has all Learner Prerequisite Knowledge been identified and stated in operational language?

14. Are the resources listed and categorized appropriately?

15. Are the Instructor Preparation Tasks complete, and presented in sequence?

SESSION FIVE

GOAL STATEMENT

To evaluate the various levels of performance specified in objectives.

INSTRUCTIONAL OBJECTIVES

1. *Given statements of learner performance the participants will classify them into one of the three learning domains, cognitive, affective, psychomotor.*

2. *Using their previously written objectives the participants will categorize them according to the sixteen terms used to describe performance.*

3. *Using their previously written and categorized objectives the participants will construct for each a test item that conforms to the specifications given.*

LESSON TIME

Instruction and practice: 1 hour 15 minutes
Individual lesson and item writing: 1 hour 45 minutes

PREREQUISITE SESSIONS

- Sessions three and four

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Transparency Masters: *Performance* *Poorly Formed Test Items* Worksheet/Information Sheet Masters: *Categorizing Performance Levels* *Levels of Performance* *Item Types* *Multiple Choice-Test Item Checklist*	Screen Overhead Projector and screen

Instructor Preparation Tasks

1. Prepare transparencies from the masters:

   Performance
   Poorly Formed Test Items

2. Duplicate for each participant:

   Categorizing Performance Levels
   Levels of Performance
   Item Types
   Multiple Choice-Test Item Checklist

3. Secure overhead projector and screen

Instructional Procedures

INTRODUCTION

When objectives are developed carefully and stated properly they provide a sound basis for choosing methods and materials for teaching, writing tests, and assigning grades. The teacher who does not spend sufficient time developing his objectives is likely to find himself "covering material" and testing and grading on the basis of how well students can parrot this material back to him. In such a situation method and materials determine objectives.

Ultimately, objectives should be expressed in terms of student behavior. Doing so makes objectives more useful as guides to instructor and testing.

TASKS

For the purpose of measuring behavioral outcomes in objectives, Bloom, Krathwohl, and Dave have classified three variables of behavior.

(Display and discuss transparency entitled *Performance.*)

(Distribute *Categorizing Performance Levels* to each participant, and provide time for its completion.)

(Distribute *Levels of Performance* and correct previously completed worksheet with the class.)

(Instruct the participants to refer to the objectives they have written and to categorize them according to one of the three domains: Cognitive, Affective, or Psychomotor. Then instruct them to indicate the level within each domain.)

Now that the participants are aware of the sixteen terms used to describe performance they should begin constructing mastery items, or tests to determine if the students have mastered the objectives they have written for their unit. When developing tests for the unit the teacher should be aware of the variety of item types that could be used. Basically test items fall into two categories: the supply type and the choice type.

(Distribute information sheet entitled *Item Types*, and discuss the advantages and disadvantages of each. Distribute *Multiple Choice-Test Item Checklist* for the participants information.)

(Display transparency entitled *Poorly Formed Test Items* and discuss the inappropriatness of each item.)

1. There are many ways this question could be answered. An additional word or two would indicate to the student which of them the teacher wants.

2. This question is so broad as to be almost meaningless. The range of answers which could be given is so wide as to provide little or no common ground to be used as a basis for scoring.

3. This item is a failure. It has three parts, one of which is true, one of which is false, and one of which may be true. It is likely to confuse rather than test the student.

4. There are no directions given, the columns have no headings. Four of the items in the first column are National Parks. One is a mountain. They should all be the same.

5. The stem lacks the necessary information to determine what is being asked. As item stands, there are three equally correct answers. Can the stem be referring to an electrical conductor? This ought to also be made clear.

SUMMARY

The participants have become aware of the 16 terms used to classify behaviors in the three domains, they have also reviewed the two major classifications of test items and have discussed the advantages and disadvantages of the various item types. They should now refer to the objectives they have written and categorized and develop test items for them. One hour and forty-five minutes is alotted for the participants item writing. Following this item writing the instructor should debrief according to the following items of concern.

DEBRIEFING (Should follow individual lesson and item writing)

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

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Schoer, Lowell A. *Test Construction: A Programmed Guide.* Boston: Allyn and Bacon, 1970.

PERFORMANCE

COGNITIVE

Behaviors which place emphasis on the mental or intellectual processes of the learner. Those levels are: knowledge, comprehension, application, analysis, synthesis and evaluation.

AFFECTIVE

Behaviors which primarily emphasize attitudes, emotions, and values of the learner and are usually reflected by interest, appreciations and adjustments. The levels are: receive, respond, value, organization characterization.

PSYCHOMOTOR

Behaviors which place emphasis on the physical skills involving various degrees of physical dexterity. These levels are: imitation, manipulation, precision, articulation and naturalization.

CATEGORIZING PERFORMANCE LEVELS

Directions: Classify each statement below by writing the correct letter in front of the statement according to the following: Cognitive (C), Affective (A), or Psychomotor (P).

The learner

_____ 1. Can evaluate the best of two solutions to a geometry problem.

_____ 2. Responds with respect to workers.

_____ 3. Has knowledge of the names and contributions of five important labor leaders.

_____ 4. Reaches a level of precision on a wood lathe.

_____ 5. Is willing to respond to the questions on a Strong Vocational Survey.

_____ 6. Properly imitates the backward flip of his instructor.

_____ 7. Displays a comprehension of a legal contract.

_____ 8. Has knowledge of 60% of the words on a spelling test.

_____ 9. Displays a value for art appreciation by attending lectures on the subject.

_____10. Is able to apply the formula.

CATEGORIZING PERFORMANCE LEVELS

ANSWER KEY

The Learner

C 1. Can evaluate the best of two solutions to a geometry problem.

A 2. Responds with respect to workers.

C 3. Has knowledge of the names and contributions of five important labor leaders.

P 4. Reaches a level of precision on a wood lathe.

A 5. Is willing to respond to the questions on a Strong Vocational Survey.

P 6. Properly imitates the backward flip of his instructor.

C 7. Displays a comprehension of a legal contract.

C 8. Has knowledge of 60% of the words on a spelling test.

A 9. Displays a value for art appreciation by attending lectures on the subject.

C 10. Is able to apply the formula.

LEVELS OF PERFORMANCE

COGNITIVE

1. Knowledge - involves the recognition and recall of facts (related verbs: define, identify, distinguish)

2. Comprehension-the learner interprets, translates, summarizes or paraphrases given material. The person can organize the material into another form of communication (related verbs: reorder, explain, conclude, predict, prepare, make, draw)

3. Application - involves the use of material in a situation which is different from that situation which it was originally learned (related verbs: generalize, choose, develop, classify, apply, organize)

4. Analysis - involves separating a complex entity into its parts, drawing comparisons and relationships (related verbs: contrast, compare, categorize, analyze)

5. Synthesis - involves combining elements to form a new original entity. It involves a process of working with parts, pieces, elements (related verbs: formulate, modify, design, produce, document, derive)

6. Evaluation - involves act of decision making, judging or selecting (related verbs: judge, argue, validate, appraise)

AFFECTIVE

1. Receive - the learner is aware of, or passively attending to certain phenomena (listening).

2. Respond - the learner complies to given expectations by reacting to stimuli (obeys or participates)

3. Value - the learner displays behavior consistent with a belief or attitude in non-forced situations, (demonstrates a preference, certainty, conviction)

4. Organization- learner is committed to a set of values.

5. Characterization - total behavior is consistent with the values he has internalized.

PSYCHOMOTOR

1. Imitation - crude, imperfect imitation of an observable action.

2. Manipulation - performs an act according to instructions rather than on the basis of observation.

3. Precision - the learner performs skill independent of model or a set of directions.

4. Articulation - emphasizes the coordination of a series of acts.

5. Naturalization - the act is routinized to such an extent that it results in automatic response.

ITEM TYPES

		ADVANTAGES	DISADVANTAGES
SUPPLY TYPE	ESSAY/ SHORT ANSWER	Composes own response used as exercise in thinking, organize ideas, express thoughts.	Scoring procedures--discrepancies between one paper and next. Often too open ended.
	COMPLETION/ FILL-IN-THE-BLANK	Easiest type to construct; uses include definition of terms, vocabulary.	Always more than one form to answer. Difficult to supply learner w adequate cues without giving the answer.
CHOICE TYPE	MULTIPLE CHOICE	Realistic-problem solving, faced with alternative and must choose; life-like. Appraises thinking skills as well as simple recognition.	Difficult to measure creative abilities. Requires reading and comprehension abilities.
	TRUE/FALSE	Tends to measure recall.	Usually limited to acquisitio of terms encountered. Need large number to produce reasonable reliability.
	MATCHING	Efficient-same set of words; may yield 10-12 responses. Conserves time.	Limited range of objectives; difficult to construct good items.

ITEM TYPES

	DISADVANTAGES	TO PREPARE
as ize	Scoring procedures--discrepancies between one paper and next. Often too open ended.	1. State each question specifically. 2. Determine elements of answer prior to administering test. 3. Construct a checklist to use during scorin 4. Give separate scores for responses and han writing (if grading for it at all).
ises	Always more than one form to the answer. Difficult to supply learner with adequate cues without giving away the answer.	1. Keep the ratio of words given to those omi ted high or the meaning will begome obscur 2. Blanks should refer to omitted words that are important, not a, an, the.
faced well	Difficult to measure creative abilities. Requires reading and comprehension abilities.	1. The stem or questions should be clear and concise. 2. Requires more than one word answer. 3. Care must be taken so word usage doesn't give the answer away. 4. Provide at least four alternatives. 5. Put alternatives at end of stem, not in middle of sentence.
	Usually limited to acquisition of terms encountered. Need large number to produce reasonable reliability.	1. Avoid statements of broad generalizations (they're usually false). 2. Negative statements are usually misinterpr 3. Avoid combining two statements in one sent 4. Ease high chance score by assigning weight to the five possible choices. Weight of Statement True / False A. The statement is true: +2 / -2 B. The statement is probably true: +1 / -1 C. I don't know: 0 / 0 D. The statement is probably false: -1 / +1 E. The statement is false: -2 / +2
	Limited range of objectives; difficult to construct good items.	1. Watch grammar "give-aways." 2. Put headings on both columns. 3. Make columns uneven. 4. Phrase question explicitly.

TEST ITEM CHECKLIST

(Multiple Choice)

Please use the following as a review checklist after completion of your test item. If any of the statements does not characterize your test item, the test item should be revised so as to meet the checklist criteria.

___ 1. Does the stem present a single definite problem?

___ 2. Does the problem presented in the stem adequately test the performance objective?

___ 3. Is the problem presented clearly and simply? The item should not be a test of reading ability.

___ 4. Is all the information present in the stem in order for the examinee to understand the intent of the item?

___ 5. Are the options presented clearly and simply?

___ 6. Are all the repetitious wordings removed from the options?

___ 7. Are the options grammatically correct as completions of the stem?

___ 8. Are the options written in parallel form?

___ 9. Are the distractors properly worded so that they are not too technical?

___10. Are all of the options written so that they are not too technical?

___11. Is the correct response one on which competent critics would agree?

Are the distractors written so that they are not significantly different from the correct response with respect to:

___12. Wording, phraseology?

___13. Grammatical construction?

___14. Lenth?

___15. Are options such as "none of these," "all of these," ect., avoided?

___16. Are absolute valences in options avoided?

POORLY FORMED TEST ITEMS

1. Jamestown was settled _____.

2. Discuss the Civil War.

3. William Shakespeare was born in 1564, was the greatest English writer, and wrote nearly 400 plays.

4.

Zion	Idaho
Mitchell	Utah
Yosemite	North Carolina
Mt. Ranier	Ohio
Glacier	California
	Washington

5. A conductor:

   a. works with people

   b. punches tickets

   c. earns a low wage

   d. is found only on railroads

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SESSION SIX

GOAL STATEMENT

To increase student involvement in career education activities.

INSTRUCTIONAL OBJECTIVES

Given a variety of activity suggestions, the participants will develop one class activity utilizing an instructional method not previously utilized.

LESSON TIME

Occupational Game:	30 minutes
Instruction:	15 minutes
Lesson Development:	1 hour, 30 minutes
Lesson Sharing:	45 minutes

PREREQUISITE SESSIONS

None

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Transparency Masters: *A Challenge to Teachers* Information Sheet Masters: *Suggested Activities for Increasing Student Involvement* *Classification of Media and Specific Activities* Game cards - Sample occupation cards for game.	Overhead projector Screen Straight Pins Classroom materials: Colored construction paper Butcher paper Felt tip pens Scissors

Instructor Preparation Tasks

1. Prepare, duplicate and cut an occupation card for each participant. (The instructor may wish to make additional copies to give the participants an entire set.)

2. Prepare transparency *A Challenge to Teachers*.

3. Duplicate for each participant, a copy of:

   Suggested Activities for Increasing Student Involvement
   Classification of Media and Specific Activities

Special Instructions for Session Six

This session begins by involving each of the participants in a game of occupations. As each participant enters pin an occupation card (sample cards provided) on their back without revealing the name of the occupation to them. Tell them to refer to the blackboard for directions.

On the board or chart the following instructions should be printed:

> Each of you are to determine the occupation you represent by asking classmates questions that can be answered by "yes" or "no". If the question cannot be answered by "yes" or "no" your classmate will indicate he/she cannot respond. You will have 30 minutes for this exercise. This activity is designed to get you actively involved and thinking about occupations.

Instructional Procedures

GAME DISCUSSION

Explain to the class that this was an activity designed to get them actively *involved* and thinking about occupations.

Allow the participants to discuss the nature of questions most frequently asked and the most effective kinds of questions.

Discuss this activity's adaptation at various grade levels. Would students enjoy it? Could it be used with modification at primary grades? Would high school students think it too elementary for their level of sophistication?

INTRODUCTION

In order to help students reach their potential, to be self-motivated and to achieve self-actualization, education must stimulate the development of career conscious individuals,

individuals who are able to visualize and plan for their careers. The challenge to education is to facilitate career consciousness in all students at all educational levels.

(Display and discuss transparency entitled *A Challenge to Teachers.)*

A career conscious student can link his present circumstances to his projected life career, and he can see that his life now does have relevance to his visualized goals. Although his visualized life career may be changing constantly, it does provide a basis for career related behavior activities. The school environment, for example, is a student's present career. How a student approaches his school tasks (work tasks), his peers (fellow workers), his teachers (supervisor), can be projected to suggest how well he will later interact with such people in other work environments.

TASKS

Developing effective school based career development programs requires an understanding of (1) individual approaches to learning and (2) instructional strategies and materials. Career development programs should be arranged to increase the learners' ability to grasp, transform, and transfer.

(Distribute information sheets *Suggested Activities for Increasing Student Involvement* and *Classification of Media* and *Specific Activities.)*

Indicate that these lists, while no means complete, represent suggestions for activities that tend to increase active student involvement.

Instruct the participants to spend classtime to develop an activity that incorporates student involvement in a way not used in previously developed lessons. They may wish to work in groups or singly. If they wish to develop the materials to accompany the game, a few classroom supplies should be available. They may develop a set of questions, following the format of "20 questions" to use prior to the Occupations Game they just played.

SUMMARY

Allow several class members to share their lessons and if at all possible actually involve the class in the activity they developed.

DEBRIEFING (Should follow the lesson sharing activity)

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

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A CHALLENGE TO TEACHERS

	Career Apathetic Students	Career Conscious Students
work tasks	something to avoid, unpleasant associations	a challenge, not always pleasant but provides proof of ability
education	required, something to live through and get by	preparation for life, appreciation for learning
work-place	where you put in time	opportunity to achieve, something to identify with
self	just students, an object to be manipulated	unique person, can control own destiny
teachers	make decisions for you, someone to resist	equals with differing responsibilities
peers	compete against, guard against	interdependency, cooperative

GAME CARDS

To Be Duplicated and Cut

Barber

1. Requires license.
2. Often in close personal contact with customer.
3. Requires skilled fingers & eye-hand coordination.
4. Trims and styles heads & chins.

Antenna Installer

1. Might do headwork on a Martian.
2. Might get a volting shock.
3. Helps bring in a good picture.
4. Outfits roofs with receivers.

Taxi Driver

1. Trade first horse-drawn and English.
2. Major part of many transportation systems.
3. Requires special license & no criminal record
4. Moves passengers for a fare.

Telephone Cable Splicer

1. Outdoor work.
2. Must be strong & dexterous.
3. Often works hanging on to tall poles.
4. Connects lines & wires for a current that talks.

Zoologist

1. Inside the field of biology.
2. Most often research, education.
3. Salary is 3rd highest of all scientists.
4. Studies animal origin, habit, growth, distribution, genetics.

Postal Clerk

1. Formerly selected by Civil Service Exam.
2. All new workers serve 1-yr. probation period.
3. Paid on same base as city postal carriers.
4. Sorts mail.

Hospital Superintendent

1. Under many pressures.
2. Position considered career goal.
3. Administers policies of board of trustees.
4. Manages hospital, personnel, supplies, equipment, budget.

Babysitter

1. Requires knowledge of & understanding of children.
2. Domestic, trusted worker in private setting.
3. Most likely female.
4. Part-time nursemaid.

Roofers

1. Good sense of balance.
2. Involves apprenticeship or on-the-job training.
3. Strenuous, outdoor work with hot tar.
4. Work on top of buildings.

Bill Collector

1. Clerical worker in public contact.
2. Requires financial business knowledge.
3. Role comes from ancient times.
4. Seeks debtors with no time left.

Box Office Cashier

1. Accuracy & dependability important.
2. Often part-time indoor evening work.
3. Returns tickets for coins.
4. Admits people to entertainment.

Orthodontist

1. Profession of high selective standards.
2. Must obtain state license.
3. Reports highest income of his field.
4. Corrects teeth & jaws by braces, etc.

Able-Bodied Seaman

1. Requires brawn & stamina.
2. Has a salt weathered face and sun bleached hair.
3. Rough water lookout.
4. Might save lives as a lifeboat master.

Bulldozer Operator

1. Controls giant pedals & levers.
2. Might build, destroy, grade, dip up.
3. Endures noise, dirt & constant jolting.
4. Moves the earth.

TV Make-Up Artist

1. Might make a dozen faces from one.
2. Demand for his service outweighs supply.
3. Uses tints, rogues, wigs, masks.
4. Works behind stage to disguise, cover for cameras.

Painter

1. Must not be allergic to paint fumes.
2. Apprentice, then journeyman.
3. Self-home painters decrease their demand.
4. Decorates & protects with paint & varnish.

Bookbinder

1. Ancient skill now automized.
2. Must learn as apprentice/on-the-job.
3. Helps educate a people.
4. Performs last step before reading.

Automobile Body Repairman

1. Trains on-the-job in a "body" shop.
2. Must handle a jack & work in grease.
3. Requires mechanical ability.
4. Fender doctor.

Aerial Photographer

1. Snaps shots.
2. Might help in map construction.
3. Might do military reconnaisance.
4. Works at high altitudes.

HOTEL MAIDS

1. Experience, not education, important.
2. Is most often a woman.
3. Paid partly in tips.
4. Replaces soiled sheets & collects forgotten personals.

SHOE REPAIRMAN

1. Work done by "Cobblers" now automatic.
2. Two years apprenticeship usual.
3. Demand down due to more durable materials.
4. Replaces tired heels & soles.

TAX COLLECTOR

1. Holds law degree.
2. Does much auditing & bookkeeping.
3. Most work with IRS.
4. Investigates random revenue returns.

BANK LOAN OFFICER

1. Makes up collection notices.
2. Analyzes applicant's financial status.
3. Negotiates terms of transactions.
4. Handles foreclosures.

PROOFREADER

1. One of 65 jobs in printing field.
2. Deaf employees successful.
3. Uses code of marks.
4. Compares printed samples to original for errors.

Narcotics Agent

1. Requires training in pharmacy.
2. Might have long hours & dangerous work.
3. Might investigate chemical firms for purity.
4. Might work in law to help addicts.

X-Ray Technician

1. Special 2-yr. hospital training.
2. Field growing more specialized.
3. Part physicist, part nurse.
4. Use x-rays, radium, barium, to diagnose & treat.

Reservation Clerk

1. Needs clerical aptitude.
2. On-the-job training.
3. Notifies room clerk of guests expected arrival time.
4. Confirms reservations.

Brick Mason

1. Romans first used him 6,000 years ago.
2. Reads blueprints.
3. Uses trowels, jointers, hammers, chisels, mason's levels.
4. Craftsman who constructs, & repairs partitions & structures.

Test Pilot

1. Must be licensed & pass rigid training.
2. Might work in NASA flight experiments.
3. Flies high performance, jet aircraft.
4. Might check new plane models for manufacturers.

Suggested Activities For Increasing Student Involvement

Developed By
Cooperative Educational Service Agency #9
Green Bay, Wisconsin

1. Clay work
2. Using microscopes
3. Making class songs
4. Class singing
5. Spray painting
6. Finger painting
7. Potato printing
8. Junk printing
9. Modern dance
10. Finger plays
11. Folk dancing
12. Make a pair tree (e.g. homonyms)
13. Brainstorming
14. Developing story from a picture or observing one thing or person
15. Varied points of view of one thing or person
16. Sentence completion (e.g. Happiness is... Blue is...)
17. Making a mystery from a few words or start of sentence or paragraph
18. Dramatizing
19. Puppet shows
20. "Bring & Brag" (Show & Tell)
21. Functional collecting
22. Listing
23. Recording
24. Identification by senses
25. Story telling
26. Story building
27. Oral reading
28. Reports
29. Class discussion of films
30. Making own films, motion pictures, or slides
31. Shadow plays
32. Diorama
33. Pantomime
34. Walks
35. Observation recall
36. Making books
37. Riddles
38. Poetry writing
39. Limericks
40. Haiku poetry
41. Letter writing (pen pals)
42. Newsletters
43. Window-watching (to exercise powers of observation)
44. String painting
45. Map reading
46. Skimming newspapers
47. Creative writing about one picture
48. Class games (Basketball)
49. Daily weather report
50. Bingo with subject terms and vocabulary
51. "Do You Know" game
52. Listening (to tapes or books)
53. Library research
54. Library sessions
55. Census of your community (e.g. fathers working in cheese factory, family count, trees in yard)
56. Time machines
57. Team competition
58. Radio & TV Programs
59. Experimentation
60. Student demonstration
61. Creative writing
62. Student committees
63. Baseball inspiration games
64. Preparing slide presentations
65. Speeches
66. Password
67. Interviews
68. Collections
69. Resource people
70. Tree naming
71. Overhead presentation
72. Murals
73. Exhibits
74. Tape recordings
75. Flag responsibility
76. Safety patrol
77. Game involvement
78. Record keeping
79. Choral reading
80. Student librarian
81. Special or group reports
82. Student tutoring

83. Tree planting - landscaping
84. Care of school grounds
85. Essays
86. Team teaching
87. Aquarium or terrarium
88. Reaction test
89. Plant growing
90. Animal growing
91. Committee work
92. Student curriculum planning
93. Leaf collections
94. Gathering weather data
95. Crossword puzzles
96. Student teaching for a day
97. Time-line presentations
98. Book reports - dressing to represent characters
99. Student self-discipline
100. Planned student parties
101. Spelldowns
102. Field trips (photographs, drawings)
    a. Water, soil analysis
    b. Observing dump - landfill
    c. Blacktop parking lot or playground
    d. Business area
    e. Sewage treatment
    f. Evaluate attitudes by interview (college-slums, urban-rural)
    g. Power plants
    h. River pollution or marsh pond
    i. Factory; effects on lake
    j. Trout hatchery
    k. Ranger station
    l. Industry: paper, canneries
    m. Construction sites - road bed
    n. Chlorination of pools
    o. Animal trapping
    p. Farm
    q. Problems of land area used by roads, etc.
103. Survey - ecosystems
104. Constructing: models, floats, charts, maps, posters, graphs, cartoons, pictures, bulletin boards, flannel board.
105. Newspaper articles
106. Problem-solving discussion
107. Simulation games
108. Opinion polls
109. Debates
110. Plays
111. Panels
112. Role playing
113. Mock court cases
114. Puppet shows
115. Mock town meetings
116. Topographical displays
117. Musical parodies
118. Work sheets
119. Recycling program
120. Students make up questions
121. Determine water consumption
122. 3-D objects
123. Skits
124. Sales campaigns
125. Multi-media
126. Journals
127. Clubs
128. School forest
129. Fishbowl discussion
130. Variations of TV game shows, i.e., What's My Line, Hollywood Squares, You Don't Say
131. Collages

CLASSIFICATION OF MEDIA AND SPECIFIC ACTIVITIES FOR FACILITATING CAREER DEVELOPMENT WITH MIDDLE OR JUNIOR HIGH STUDENTS*

Media	Learning Activities and Resources
Publications	Biographies
	Magazines and periodicals
	Newspaper (School, business, and community)
	Booklets and brochures
	Reference books
	Career function
	Songs and poems; occupational briefs, abstracts; monographs and guides
	Occupational Outlook Handbook
	Technical manuals, books, magazines; vocational workbooks
Audio-visuals	Career Fair
	Posters (Vocabulary lists of major terms used in an occupational field)
	Charts (Employment trends, relation between education and different occupations)
	Mural and Art (Depict meaning of work; illustrate what work will be like in the future)
	Records (Students select records of songs that have a message about work and interpret their meaning)
	Tape Recording (Students record interviews with different workers, share topics with each other, compile a collection of tapes)

*_Career Education Resource Guide_, General Learning Corporation, 1972.

Media	Learning Activities and Resources
Audiovisuals (continued)	Videotape (Develop a collection of videotapes on work settings and occupations that are not germane to the community)
	Radio and Television (What to see if your state has a statewide program on careers)
	Slides (Students make slides with a script on local occupations.)
	Films and filmstrips (Check state and local film libraries)
Speaker	Career conference; job clinic
	Reports by individual students
	Assembly programs (Invite secondary students to tell about different curriculum areas.)
	Speakers (Invite individuals who represent a cross section of the occupational structure to speak)
	Career Clubs (Students with similar interests form a club under the guidance of people working in the area to learn more about the field)
	Panels (Invite former students who are currently employed)
Exhibits	Displays (Tools, equipment, and special clothing used in different occupations)
	Bulletin boards (Occupational classification, list of words describing abilities, interests, values)
Demonstrations	Demonstrations (Invite workers to demonstrate tools, equipment, clothing used; illustrate how they are used in performing different tasks; workers illustrate how they use skills related to a particular subject)

Media	Learning Activities and Resources
Field trips	Conferences with workers and personnel officers, secondary school students and officials
	Making a job analysis
	Conducting a job survey
	Plant tours
Simulation of Situation	Practice job interview
	Special skits (Illustrate personnel problem situation such as with career and educational planning and decision making)
	Career games
	Occupational Exploration Kit
	Job Samples (Science Research Associates; Allows students to perform activities typically performed by workers in a given occupation)
	Tryouts (Students spend two to four weeks in different vocational areas)
	Applied Learning (Students apply academic knowledge, concepts and skills in solving career-oriented problems)
Direct Purposeful Experiences	Extended on-job observation (Students select a given worker and spends two to ten hours observing and talking with the worker in the work setting; students would rotate through eight to twelve different job observations)
	Youth Volunteer Service (Students gain experiences in social services through youth volunteer service programs such as in hospitals, homes for the aged, Head-start, welfare, and services for handi-capped.

Media	Learning Activities and Resources
Direct Purposeful Experiences (Continued)	Rent-A-Kid (Teacher organizes a program in which students perform community services such as garden maintenance, window cleaning, minor painting jobs, lawn mower repair.) Production Project (Students make their own product and retail it in the community, under the direction of a teacher or local retired businessman.) On-Job-Tryout (Students rotate through several different jobs from two to ten hours and perform selected nonhazardous functions) School Projects (Students landscape school lawn; produce a school newspaper; manage school enterprises such as assembly programs, exhibits, school stores, school bank, lost and found department, school publications, and student government)

SESSION SEVEN

GOAL STATEMENT

To bring about a greater awareness of the relationship between the working world and the school curriculum.

INSTRUCTIONAL OBJECTIVE

Given criteria and format for a mini-lesson, the participants will develop one activity meeting the criterion requirements and format specifications.

LESSON TIME

Instruction and samples:	1 hour
Activity Development:	1 hour
Sharing:	1 hour

PREREQUISITE SESSIONS

None

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Information sheet Masters: *Mini-Lesson Format and Criteria* *Sample Mini-Lesson* *Brainstorming - Transparency Master* *The Teacher's Calendar* *Resource Units*	Overhead Projector

Instructor Preparation Tasks

1. Duplicate for each participant:

   Mini-Lesson Format and Criteria

   Sample Mini Lesson

   Resource Units

   The Teacher's Calendar

2. Prepare transparency of *Brainstorming*

Instructional Procedures

INTRODUCTION

In addition to developing units of instruction composed of objective based lessons each contributing to the attainment of a goal, teachers should be aware of lessons that are *concept* based. A concept identifies a broad area of study - there is not a goal specified and there may be no specific measurable behaviors with which to evaluate the students mastery. For the purposes of this class we will call a concept based lesson a mini-lesson. These lessons take a variety of forms, but basically they are quick, career education insertions or additions to the regular curriculum. They are usually taught in conjunction with a regular curriculum concept and the primary intent is to bring about an awareness of the relationship of the working world to the content being taught.

Tasks

(Discuss the differences between a mini-lesson and a unit.)

UNIT	MINI-LESSON
1. A unit is composed of *several* lessons each teaching for a *specific, measurable* objective; each objective bringing the student one step closer to a *stated goal.*	1. A mini-lesson represents a *single* instructional activity; it seeks to bring about an *awareness* of the *relationship* between the *regular curriculum* and the *working world.*
2. A unit may *relate* to the existing curriculum and may be used in *addition* to or as a *replacement* for regular curriculum.	2. A mini-lesson is developed as a *component* to a regularly taught lesson, and is taught in *conjunction* with it.

(Distribute and discuss *Sample Mini-Lesson* and *Mini-Lesson Format and Criteria.)*

Restate the emphasis of a mini-lesson to the regular curriculum content.

Using the following career education concepts brainstorm with the group where in the existing curriculum they best infuse. Elicit possible classroom activities related to both the career education and regular curriculum concept.

For each concept, instruct the participants to identify the components, then to identify when or where in the curriculum these components are traditionally taught, then think of an activity that related these traditional components back to the career education concept.

Display transparency entitled *Brainstorming.*

An example is shown on the transparency, *Brainstorming.*

Reveal only one portion of the transparency at a time. As it is revealed discuss each point.

i.e., Let's brainstorm the concept- show concept on transparency.
Show questions, and ask, "What are these factors?"
Elicit possible answers, then show the sample on the transparency.
Ask class to think about their curriculum...show this portion of the transparency.
Tell class to analyze the careers...show this portion.
Continue working through the sample on the transparency.

If the class needs more practice brainstorming, work through these concepts:

Specialization leads to interdependency
Occupations and life-styles are interrelated
Individuals must be adaptable in a changing society

Before instructing the participants to begin developing their mini-lessons, distribute the Information Sheets *Resource Units* and *The Teacher's Calendar.* Though these are not directly concerned with mini-lessons, they may provide suggestions not previously incorporated into the lesson development.

Allow one hour for mini-lessons, they may provide suggestions not previously incorporated into the lesson development.

Allow one hour for mini-lesson development.

Allow ample time for the group to share their mini-lessons.

SUMMARY

The participants were introduced to the mini-lesson concept and provided time to develop mini-lessons. These lessons, while not tied to other career education lessons will provide suggestions for attaining career education outcomes while still concentrating on the traditional subjects.

DEBRIEFING

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

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MINI-LESSON FORMAT AND CRITERIA

RECOMMENDED SUBJECT AREA

The course and specific content to which this lesson relates.

OBJECTIVE

A statement indicating the desired learner outcomes (cognitive, affective or psychomotor) as a result of this lesson.

LESSON TIME

This, of course will vary depending on each individual teacher's presentation. An approximate time should be indicated.

PREREQUISITE SKILLS

A listing of those skills, knowledges, or previously taught concepts that serve as a basis for this lesson.

RESOURCES REQUIRED

A listing of materials or equipment necessary to implement this lesson.

INSTRUCTOR PREPARATION TASKS

A listing of those things the instructor need do before teaching the lesson.

INSTRUCTIONAL PROCEDURES

A listing of the steps taken by both the instructor and the students during the teaching of this lesson.

SAMPLE MINI-LESSON*

RECOMMENDED SUBJECT AREA

High School World History
The Quality of Renaissance Life

OBJECTIVE

The students understand that individual choice of a career was a contributing factor in the improvement in the quality of life from the Middle Ages to present.

LESSON TIME

20 minutes in addition to the traditional historical topics.

PREREQUISITE SKILLS

An understanding of the life style that dominated during the Middle Ages and the knowledge of the events occurring during the Renaissance Period.

RESOURCES REQUIRED

1. Slides illustrating the changes in the professions of artistry, architecture, literature, warfare (McGraw Hill, *Color Slide Program of the World's Art*).
2. A bulletin board depicting these changes.

INSTRUCTOR PREPARATION TASKS

1. Secure slides, projector and screen.
2. Construct a bulletin board of magazine clippings, or art prints depicting the contrasts between the Medieval and Renaissance eras.

*Adapted from *Career Education in Northeastern Arizona*, A Graduate Syllabus for Inservice Career Training of teachers, counselors and administrators, Apache-Navajo County Career Education Project.

Instructional Procedures

1. Provide for the variety of the slides and a discussion of the changes that resulted from the development of a "humanistic" approach to individuals.

2. Have learners note the contrasts depicted on the bulletin board and discuss the factors that led to change.

3. Discuss how the uniqueness of individuals, worth of individuals and human dignity relate to the individual selection of an occupation.

4. Use exemplars from the Renaissance Era to illustrate the concept of human dignity and satisfaction received from world.

5. Relate the fulfillment and happiness derived from a career to the quality of western life.

BRAINSTORMING

Concept: Many Factors effect the emergence and disappearance of jobs

Ask what are these factors?

Possible Answers: Geography, Advance of Technology, Supply and Demand

Think of your curriculum, do you teach these? Do you ever relate them to the emergence or disappearance of jobs?

For each above answer, analyze the careers associated -- i.e. Geography, careers associated with climate, terrain, rainfall.

Now think of the school curriculum, what do you teach about climate, terrain, rainfall?

What activities can you add to your regular curriculum that incorporate career education outcomes? Specifically, what can you do during your geography lesson that makes the students aware of the importance of geography to the availability of jobs?

RESOURCE UNITS*

It is suggested that exploration activities be fused into each school subject discipline through resource units so as to facilitate the accomplishment of both career development and subject-matter objectives. It is important that resource units be included as an integral part of the subject rather than as an add-on activity. Resource units are defined as guides for teachers in developing units. Although resource units may vary greatly in their content and in their completeness, they often suggest outcomes of the unit, an outline of the unit, bibliographies, and audio-visual aids. The designation "resource" emphasizes the desirability of adapting suggested materials to the needs of a particular group.

Such units can be used within a single subject area or they can be interdisciplinary in nature, involving several areas. Resource units for career exploration purposes may contain the following elements.

1. *Hands-on and minds-on activity.* The class selects a project such as organizing and operating a bank, publishing a newspaper, or producing a television program. As occupational roles are defined and functions described, each student selects an occupational role he will perform as all students work together toward a common objective.

2. *Subject tie-in.* The subject-area skills needed by the student to perform his task are taught. Where teams of teachers are working together, it would be possible to have subject tie-in from several areas.

3. *Community resource.* As part of each unit, community resource people with competency in occupations that make up the project are invited to school to display their tools, to talk about their jobs, etc. It is not unusual for volunteer community workers to come and work in the school to help develop and carry out the project.

4. *Interviews.* Each student selects a person to interview within the career field being studied. Considerable class time is spent helping the student identify the questions he wants answered.

5. *Role-playing.* Each student identifies problems and situations that might occur in the work setting under consideration and then role-plays these. Often a problem is role-played prior to preparation and also afterward so that students can contrast the difference in the way a problem or situation can be handled.

6. *Resource materials.* The student is allowed to select from a wide range of printed and audio-visual resource materials related to the unit topic.

7. *Feedback.* Each resource unit allows the student an opportunity to discuss his experiences as part of the resource unit. For the student to clarify his abilities, values, and interest, it will be necessary that he be allowed to verbalize what he has learned in the unit that enables him to better understand himself.

8. *On-the-job visitation.* Students as a group or as individuals would visit a work setting in which work was being done similar to that being studied through the resource units. Students would be allowed to observe workers and discuss with them their work.

**Career Education Resource Guide*, General Learning Corporation, 1972

THE TEACHER'S CALENDAR

JANUARY

1 New Year's Day FLAG*
1 Paul Revere (patriot) 1735-1818
1 Emancipation Proclamation 1863
1 Betsy Ross (American flag) 1752-1836
2 Georgia (ratified constitution) 1788
3 Alaska (49th State) 1959
4 Utah (45th State) 1896
4 Louis Braille (blind teacher) 1809-1852
6 Twelfth Day-Epiphany
6 New Mexico (47th State) 1912
6 Demonstration of Telegraph 1844
6 Carl Sandburg (poet) 1878-
7 First National Election 1789
7 Millard Fillmore (13th President) 1800-1874
9 Connecticut (ratified Constitution) 1788
11 Alexander Hamilton (statesman) 1757-1804
17 Benjamin Franklin (inventor, statesman) 1706-1790
18 Daniel Webster (statesman) 1782-1852
19 Robert E. Lee (leader of Confederate Army) 1908-1870
19 Edgar Allan Poe (poet, *The Raven*) 1809-1849
20 Inauguration Day FLAG
24 Gold discovered in California 1848
25 Robert Burns (poet *Auld Lang Syne*) 1759-1796
26 Michigan (26th State) 1837
26 Mary Mapes Dodge (author *Hans Brinker*) 1838-1905
27 Lewis Carroll (author *Alice in Wonderland*) 1832-1898
29 Kansas (34th State) 1861
30 Franklin D. Roosevelt (32nd President) 1882-1945
31 Explorer I launched 1958

FEBRUARY

Second Week - Boy Scout Week, Negro History Week
1 Victor Herbert (composer) 1859-1924
2 Groundhog's Day
4 Charles Lindbergh (aviator) 1902-1974
6 George H. (Babe) Ruth (Baseball player) 1895-1948
6 Massachusetts (ratified Constitution) 1788
7 Charles Dickens (author *The Christmas Carol*) 1812-1870
8 Boy Scouts of America founded 1910
8 Jules Verne (author *20,000 Leagues Under the Sea*) 1828-1905
9 William H. Harrison (9th President) 1773-1841
9 U.S. Weather Service established 1870
11 Thomas A. Edison (inventor) 1847-1931
12 Abraham Lincoln (16th President) 1809-1865 FLAG
14 Saint Valentine's Day

FEBRUARY (Continued)

14 Oregon (33rd State) 1859
14 Arizona (48th State) 1912
15 Galileo Galilei (scientist) 1564-1642
19 Nicolaus Copernicus (scientist) 1473-1543
19 Ohio (17th State) 1803
22 James Russell Lowell (poet) 1819-1891
22 George Washington (1st President) 1732-1799 FLAG
23 Johannes Gutenberg (German printer) Death, 1468
26 William Cody (Buffalo Bill) 1846-1917
27 Henry W. Longfellow (poet) 1807-1882

MARCH

Second Week - Girl Scout Week
Third Week - Hobby Week, Third Friday - Arbor Day
Last Week - Health Week
1 Nebraska (37th State) 1867
2 Sam Houston (soldier) 1793-1863
2 U.S. Post Office established 1799
3 Alexander Graham Bell (inventor) 1847-1922
3 Florida (27th State) 1845
3 *Star-Spangled Banner* adopted as National Anthem 1931
4 Vermont (14th State) 1791
6 Elizabeth B. Browning (poet) 1806-1861
6 Fall of the Alamo 1836
7 Luther Burbank (scientist) 1849-1926
8 Oliver Wendell Homes (U.S. Supreme Court Justice) 1841-1935
10 First telephone message 1876
12 Girl Scouts of America formed 1912
15 Maine (23rd State) 1820
15 Andrew Jackson (7th President) 1767-1845
15 Ides of March
16 James Madison (4th President) 1751-1836
17 Kate Greenaway (illustrator) 1846-1901
18 Hawaii (50th State) 1959
20 Harriet Beecher Stowe's *Uncle Tom's Cabin* published 1852
22 Randolph Caldecott (illustrator, Caldecott Medal) 1846-1886
29 John Tyler (10th President) 1790-1862
30 Purchase of Alaska 1867

APRIL

Third Week - National Garden Week, National Forestry Week
Last Week - Humane Week
Easter - Changeable FLAG
1 April Fools' Day
2 Hans Christian Andersen (fairy tales) 1805-1875
2 U.S. Mint established 1792
3 First Pony Express 1860
3 Washington Irving (author) 1783-1859
6 Army Day FLAG

APRIL (Continued)

6 War against Germany 1917
9 Surrender of Confederate Army 1865
10 Joseph Pulitzer (publisher) 1847-1911
12 Henry Clay (statesman) 1777-1852
13 Thomas Jefferson (3rd President) 1743-1826
14 Dictionary Day, Webster's Dictionary first published 1828
14 Pan-American Day
15 Death of Lincoln 1865
16 Wilbur Wright (Orville, August 19, 1871) 1867-1912
18 Paul Revere's ride, 1775
19 Battle of Lexington and Concord 1775
21 Queen Elizabeth II (Queen of England) 1926-
23 James Buchanan (15th President) 1791-1868
24 Library of Congress established 1800
25 Guglielmo Marconi(radio) 1874-1937
26 John J. Audobon (naturalist) 1785-1851
27 Samuel F. Morse (telegraph) 1791-1872
28 Maryland (ratified Constitution) 1788
28 James Monroe (5th President) 1758-1831
30 Louisiana Purchase 1803
30 Louisiana (18th State) 1812

MAY

First Week - Child Health Day, Boys and Girls Week
Second Week - National Music Week, National Family Week
Second Sunday - Mother's Day FLAG
Third Week - Spring Book Festival
Third Sunday - Citizenship Recognition Day
Fourth Week - National Poetry Week
1 May Day
4 Horace Mann (educator) 1796-1859
5 Bird Day, Arbor Day
8 V-E Day 1945
9 James Barrie (author *Peter Pan*) 1860-1937
10 Meeting of transcontinental railroads at Promontory, Utah 1869
11 Minnesota (32nd State) 1858
12 Edward Lear (poet) 1812-1888
12 Florence Nightingale (nurse) 1820-1910
13 Jamestown settled 1607
16 Joan of Arc canonized
17 I Am an American Day (3rd Sunday)
18 Peace Day - World Good Will Day
21 Lindbergh's flight across the Atlantic 1927
21 Red Cross founded 1881
23 South Carolina (ratified Constitution) 1788
25 Ralph Waldo Emerson (poet) 1803-1882
27 Julia Ward Howe (reformer, *Battle Hymn of the Republic*) 1819-1910
29 Patrick Henry (patriot) 1736-1799
29 Rhode Island (ratified Constitution) 1790
29 John F. Kennedy (35th President) 1917-1963
29 Wisconsin (30th State) 1848
30 Memorial Day (Flag half-staff until noon) FLAG
31 Walt Whitman (poet *Leaves of Grass*)

JUNE

Second Sunday - Children's Day
Third Sunday - Father's Day
1 Kentucky (15th State) 1792
1 Tennessee (16th State) 1796
2 Martha Washington (wife of first President) 1732-1802
3 Jefferson Davis (President of Confederate States) 1808-1889
6 Nathan Hale (patriot) 1755-1776
7 YMCA organizes 1854
9 John Payne (*Home, Sweet Home*) 1791-1852
14 Stars and Stripes officially adopted 1777
14 Flag Day FLAG
14 Bastille Day (France)
15 Arkansas (25th State) 1836
15 Magna Carta signed 1215
16 Alaskan Gold Rush 1897
18 War of 1812 against Great Britain
20 Great Seal of United States adopted 1782
20 West Virginia (35th State) 1863
21 First day of SUMMER
26 United Nations Charter signed 1945
26 Virginia (ratified Constitution) 1788
27 Helen Keller 1880-

SEPTEMBER

1 Child Labor Act 1916
1 Commercial Television authorized 1940
2 V-J Day (surrender of Japan) 1945
2 Eugene Field (poet) 1850-1895
First Monday - Labor Day
6 Jane Adams (social worker) 1860-1935
6 Lafayette (French patriot) 1757-1834
9 California (31st State) 1850
11 William Sydney Porter (O. Henry) 1862-1910
13 Dr. Walter Reed (yellow fever) 1851-1902
14 Francis Scott Key wrote *The Star-Spangled Banner* 1814
15 James Fenimore Cooper (author) 1789-1851
15 William H. Taft (27th President) 1857-1930
16 Pilgrim sailed from England 1620
17 Constitution Day, Constitution officially adopted 1787
17 Citizenship Day FLAG
19 Washington's *Farewell Address* 1796
21 First day of FALL
25 Balboa first saw the Pacific Ocean 1513
28 American Indian Day (Fourth Friday)

OCTOBER

First Week - Religious Education Week
Second Week - Fire Prevention Week, National Picture Week
Third Week - National Bible Week
2 Pan-American Union first met 1889
4 Rutherford B. Hayes (19th President) 1822-1893
5 Chester A. Arthur (21st President) 1830-1886
7 James Whitcomb Riley (poet) 1849-1916
9 Chicago Fire 1871
12 Columbus Day, Discovery of America 1492 FLAG
13 White House begun 1792
14 William Penn (statesman) 1644-1718
16 Noah Webster 1758-1843
24 United Nations Day
27 Navy Day FLAG
28 Statue of Liberty unveiled 1886
29 John Keats (poet) 1795-1821
30 John Adams (2nd President) 1735-1826
31 Halloween
31 Nevada (36th State) 1864
31 Juliette Low (Founder of American Girl Scouts) 1860-1927

NOVEMBER

Second Week - Education Week
Material available from: National Education Association
1201 Sixteenth Street, N.W.
Washington 6, D.C.
Third Week - Book Week
Material available from: American Library Association
50 E. Huron Street
Chicago 11, Illinois
Tuesday after first Monday - Election Day
2 James Polk (11th President) 1795-1849
2 Warren Harding (29th President) 1865-1923
2 South Dakota (40th State) 1889
2 North Dakota (39th State) 1889
3 William C. Bryant (poet) 1794-1878
8 Montana (41st State) 1889
11 Mayflower Compact signed 1620
11 Washington (42nd State) 1889
11 Armistice Day, Veterans' Day FLAG
11 Unknown Soldier buried in Arlington Cemetery 1921
13 Robert Louis Stevenson (author *Treasure Island*) 1850-1894
14 Freedom for Philippine Islands 1935
14 Robert Fulton (steam engine) 1765-1815
16 Oklahoma (46th State) 1907
17 Congress first used Capitol 1800
19 Gettysburg Address 1863
19 James Garfield (20th President) 1831-1881
21 North Carolina (ratified Constitution) 1789
22 Assassination of John F. Kennedy 1963
23 Franklin Pierce (14th President) 1804-1869
24 Zachary Taylor (12th President) 1784-1850

NOVEMBER (Continued)

26 First Official Thanksgiving 1789 (Now fourth Thursday) FLAG
29 Louisa May Alcott (*Little Women*) 1832-1888
30 Samuel L. Clemens (Mark Twain) 1835-1910
30 Winston Churchill (British statesman) 1874-1965

DECEMBER

2 Monroe Doctrine 1823
3 Illinois (21st State) 1818
5 Martin Van Buren (8th President) 1782-1862
5 Walt Disney (film producer) 1901-
7 Pearl Harbor attacked 1941
7 Delaware (1st state to ratify Constitution) 1787
8 Eli Whitney (cotton gin) 1765-1825
9 Joel Chandler Harris (Uncle Remus Stories) 1848-1908
10 Mississippi (20th State) 1817
10 U.S. acquired Cuba, Guam, Puerto Rico, Philippine Islands from Spain 1898
11 Indiana (19th State) 1816
12 Pennsylvania (ratified Constitution) 1787
12 National Capitol Day - Washington, D.C. 1800
14 George Washington's Death 1799
14 Alabama (22nd State) 1819
15 Bill of Rights 1791
16 Ludwig von Beethoven (composer) 1770-1827
16 Boston Tea Party 1773
17 First Flight at Kitty Hawk, N.C. by Wright Brothers 1903
17 John Greenleaf Whittier (poet) 1807-1892
18 New Jersey (ratified Constitution) 1787
18 Atlas missile in orbit 1958
21 First day of WINTER
21 Pilgrims landed at Plymouth 1620
24 Christopher (Kit) Carson (scout) 1809-1868
25 Christmas Day FLAG
28 Woodrow Wilson (28th President) 1856-1924
28 Iowa (29th State) 1846
29 Andrew Johnson (17th President) 1808-1875
29 Texas (28th State) 1845

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**The Word FLAG denotes a Flag Day.*

SESSION EIGHT

GOAL STATEMENT

1. To initiate an awareness about self that may serve as a basis for career decision making.

2. To prepare for a successful field trip experience.

INSTRUCTIONAL OBJECTIVES

1. *The participants will describe a three dimensional model of career development, and determine satisfying career activities for three fictional characters.*

2. *The participants will describe five areas from which to gather information while on a field trip to a media center.*

3. *Given criteria with which to evaluate media the participants will assess the usefulness of a specific resource.*

LESSON TIME

Instruction to (objective one): 1½ hours
Instruction/media presentation (objectives two and three): 1½ hours

PREREQUISITE SESSIONS

None

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Worksheet Masters: *Factors Influencing Career Choice* *Biographies* *Satisfying Career Activities* *Suggested Evaluation Criteria for Instructional Media* Transparency Masters: *Career Development*	Overhead projector Screen Any film, filmstrip pertaining to career education, but no longer than 20 minutes in length. Film/filmstrip projector (depending upon media selected by instructor)

Instructor Preparation Tasks

1. Prepare copies of worksheets for each participant:
   Factors Influencing Career Choice
   Biographies
   Satisfying Career Activities
   Suggested Evaluative Criteria for Instructional Media
2. Prepare transparency of *Career Development*.
3. Secure overhead projector and screen.
4. Secure a 20 minute (or shorter) film or filmstrip related to career education.
5. Secure projector with which to present the above mentioned media.
6. The instructor may wish to duplicate a copy of the introduction for each participant.

Instructional Procedures

INTRODUCTION

The efforts of classroom teachers to emphasize career implications as a part of good teaching are a major component in the new career education efforts. In brief, this component aims to help students see some relationship between what they are presently studying and the possible career options available. As such it represents a form of educational motivation for the teacher to use in conjunction with other motivational devices that have worked effectively in the past. For the teacher to emphasize career implication of substantive talent holds great potential for helping all students discover reasons for learning that are directly related to the world of work outside education.

Given this kind of opportunity exactly what does career education expect the classroom teacher to do?

First, career education expects classroom teachers to embrace and adopt the basic assumptions and goals of career education themselves. It seeks to help classroom teachers reject the "school" for schooling's sake. It asks that teachers search their own consciences, their professional convictions regarding the real reasons why they have chosen to teach, the current conditions existing in their schools, the current needs of their students and the rapidly changing needs of society that have resulted in the current career education emphasis. It asks teachers to take a mature look at the concept of career education and arrive at a professional commitment consistent with their real professional beliefs.

Secondly, career education asks the classroom teacher to become aware of and knowledgeable concerning the career implications of the substantive content they seek to help students learn.

Third, career education asks the classroom teacher to seek out and utilize the wide variety of means available for emphasizing the career implications of the subjects taught to students. Career Education concepts are best taught through an activity approach. It is not a new page assigned in a book, but an approach that helps students learn through experiences in which they engage. For many teachers, this will not represent a new approach to teaching, while for others, it may involve rather extensive departures from their past practices. For all teachers it will involve re-packaging of lesson plans, and materials. Career education does not simply ask the teacher to adopt materials produced by others, but to adapt learning strategies that will be best for him.

Fourth, career education asks the teacher to emphasize career implications in ways that will bring dignity to all honest work. It asks teachers to help students see themselves as potential workers and see that work is a positive aspect of our society.

Fifth, career education asks teachers to emphasize career implications as a means to motivate students to learn more of the substantive content the teacher is attempting to teach.

Sixth, career education asks the teacher to work cooperatively with those charged with other components of career education. Teachers must actively seek out and utilize ways of working cooperatively with other teachers, but also with business, industry, labor, with counselors, and parents.

Seventh, career education asks the classroom teacher to seek out and utilize the efforts of other teachers. This potential for teachers working together is particularly appropriate in the case of career education.

TASKS

(Distribute the worksheet entitled *Factors Influencing Career Choice* and instruct the participants to work in pairs or small groups to complete it. Ask several participants to share their worksheets and determine what were the main factors that influenced this group's career choice, and which activities or events give the greatest sense of accomplishment or self-fulfillment.)

Noting that the previous exercise may have been difficult for some participants, involve the class in a discussion of values and careers, or"there's more to life than work."*

Write on the board:

> Each individual has the opportunity to enter an occupation that interests him and makes full use of his talents, and from which he will be able to derive a sense of achievement, satisfaction, and self-fulfillment.

Discuss this as fact or fiction.

Conclude discussion of this long standing career goal by indicating the truth is that many jobs simply don't offer much potential for self-fulfillment. If we cannot turn to our jobs, what can we do?

One answer is to conceptualize career development in terms of three kinds of activities.

(Display transparency entitled *Career Development.)*

We could encourage career development to distinguish between these three kinds of activities. Students could assess their aptitudes, abilities, interests, and values, and then make plans for using and satisfying them by employing all three activities. This would free them from the impossible goal of locating the "all-satisfying" occupation.

(Distribute worksheets entitled *Biographies* and *Satisfying Career Activities.* Instruct the participants to read the biography then complete the worksheet.)

Determine which person's life is most satisfying to them and why. Remind the participants to consider the biographical data given about each person.

Continue the discussion by determining how each of the three activities contribute to the person's life.

Now ask the participants to think of their own lives, and enter their name and complete the blank boxes on the worksheet.

Ask for volunteers to discuss their career activities.

SUMMARY

The reason for presenting the three dimensional career concepts is to help teachers begin the student's development of a broad attitude toward career development.

**Career Survival Skills*, Teachers' Manual, James Loughary, Theresa Ripley, Charles Merrill Publishing Company, Columbus, Ohio, 1974.

Write on the board, "What do you want to be when you grow up?"

Ask the class what response this question usually gets from a youngster. The notion of a career being synonomous with a job is reinforced in the minds of children by well meaning adults every time they ask, "What do you want to be when you grow up?" The children *are* someone now, they may not earn a wage, but they certainly contribute to society, and engage in vocational and leisurely activities. Children soon learn that the expected answer to this question is a particular occupation. A more appropriate question is, "What do you enjoy doing, and what do you hope to experience and contribute during your life?" This assists students in understanding the three dimensional career concept using information from their own experiences.

DEBRIEFING

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

SPECIAL NOTE:

Explain to the participants that the format followed in this class attempts to model a desired teaching behavior. For that reason the remainder of the class period will be spent in preparing for the next class meeting, a field experience. Explain that a field experience should be well planned and prepared and some class time should be devoted to preparing the students for their trip. For that reason the remainder of this session will concern pre-field experiences.

Continue this session with the introduction, tasks and summary that follow.

(The instructor may wish to give more time to objective one and move these pre-field experiences to lesson 10.)

Preparation for Field Trip Experience During Session Nine

(If a field experience cannot be scheduled, the instructor should ask class members to bring film, filmstrip, books, pictures, etc. with the accompanying equipment for preview during the next class meeting.)

Introduction

It is suggested that the instructor take the class to a school or public library, school supply vendor or a local career education media center during session ten.

Like any field trip experience, the participants should have prior knowledge pertaining to the kinds of information they should seek.

A knowledge of what is available is an essential step in the effective use of instructional media. Media is here defined to include all types of learning materials, print and non-print. Those teachers utilizing media effectively are constantly striving to provide the learner a wide range of learning experiences through the use of a variety of media.

A consideration and evaluation of all available media is essential before a determination is made as to which ones and which combinations will meet instructional needs.

The wide variety and excellence of the media available today provides an unprecedented opportunity for making learning more meaningful and comprehensible than ever before.

With new and better media being produced daily, in all subject areas and grade levels there is a constant challenge of (1) knowing what is available, and (2) evaluating and selecting the most appropriate combination of media for use in teaching.

Tasks (Pre-field Experiences)

In order to know what is available from local sources, the participants should be instructed to gather information pertaining to:

a. services provided
b. types and amount of equipment
c. types and amount of materials
d. policy regarding the acquisition, circulation, and use of equipment and materials
e. production facility and policy regarding local production

There is a wealth of research indicating that optimum learning occurs when different types of instructional media are used, with each type making its own valuable and unique contribution.

Science and technology have provided books, materials and knowledge to implement learning, but the ultimate responsibility for creating a favorable learning environment and for achieving desired educational goals rests squarely with the teacher. There is yet no adequate substitute for the teacher's unique ability (1) to plan and organize learning experiences and (2) to select, adapt, and relate the educational media involved to achieve instructional objectives.

(Distribute *Suggested Evaluative Criteria - for Instructional Media.)*

(Show the film or filmstrip selected, and ask the participants to evaluate it using the 19 criteria listed.)

Following the presentation discuss the media's potential for use at each developmental level. Instruct the participants to refer to one of the nineteen criteria when making comments regarding the media's use in their classrooms.

SUMMARY

The participants are now prepared to visit a local media source. They have been given five areas from which to gather information pertaining to the operation of the media center as well as 19 criteria with which to evaluate media.

If a field experience cannot be scheduled, the instructor should ask specific participants to be responsible for bringing media from their schools to the next class meeting. It is recommended that enough materials be on hand to allow ample exploration by the participants. If the instructor does not have easy access to equipment (projectors, screens, etc.) the participants should be instructed to bring the required equipment.

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FACTORS INFLUENCING CAREER CHOICE

DIRECTIONS:

1. Write down what people and events influenced your career choice.
2. List the activities you do that give you a sense of accomplishment.
3. Share these.
4. Discuss the factor similarities and differences with your partner(s).

What people influenced your career choice?

What events?

What career related activities give you a sense of accomplishment or self-fulfillment?

CAREER DEVELOPMENT

1. Job - The activity by which one earns a living.

2. Vocation - Those activities which provide a sense of achievement, contribution and self-fulfillment.

3. Leisure - Those activities which don't contribute to 1 or 2, but which are fun, relaxing, and otherwise enjoyable.

BIOGRAPHIES*

Biography of Sally Potter

Sally is twenty-five years old and works as a secretary for a local firm. Her responsibilities include typing, filing, answering the telephone, and preparing monthly reports. Sally's boss thinks highly of her work and lets her know that she is a very competent secretary. Sally is also the mother of two girls, ages three and five. Sally has enjoyed taking care of children since her baby-sitting days in junior high; and even though the girls are a big responsibility, she derives a great amount of pleasure from them. Sally was divorced last year and seems to be adjusting to the situation fairly well. Currently, she chooses to spend her time working or with her children.

Biography of Jane McNally

Jane is single, thirty years old, and teaches in a community college. She has worked at the college for six years and has developed some innovative programs in her area, which is reading and study skills. Four years ago she developed a program for disadvantaged students who were also nonreaders. The results have been gratifying, and she has helped other colleges train personnel to use her methods and materials.

Jane is also a sports enthusiast. She enjoys snow skiing, sailing, and other outdoor sports. Music is another of her interests, and she has season tickets for the symphony and other music events. Her vacations are spent traveling.

Biography of Don Brown

Don is in his fifties, married, and has no children. For the past ten years Don has been the manager of a retail plumbing business. His success is shown by the continued increasing profits, the larger inventory, and additional personnel to supervise.

As a youth Don learned the skill of carpentry and was able to make things with his hands. Don now builds houses during evenings and weekends and is just finishing his second home in eight years. His homes are completely his own projects. He starts with designing, then blueprinting, estimating cost and materials, buying the materials, and doing most of the actual construction. All phases of the project are carefully outlined and annotated in his project notebook.

During each noon hour and in early morning, Don spends his time jogging and doing other exercises. Each year he participates in marathon races, completing twenty-five miles in competition with other men over fifty years old.

*Career Survival Skills, John W. Loughary, & Theresa Ripley, Charles E. Merrill Publishing Company 1974

SATISFYING CAREER ACTIVITIES*

Read the three biographies and then complete the grid below. Note the job, vocation, and leisure activities of each person in the boxes to the right of the names.

Name	Activities		
	Job	Vocation	Leisure
Sally Potter			
Don Brown			
Jane McNally			

Select one of the following ratings for each person and enter it below under "Rating." Then briefly note your reasons for each rating.

1 - This person's life is very well balanced and fulfilled.
2 - This person's life is balanced and fulfilled.
3 - This person's life is not very well balanced and is not very fulfilling.
4 - This person's life is not balanced and lacks fulfillment.

Name	Rating	Reason
Sally		
Don		
Jane		

*Career Survival Skills, John W. Loughary, Theresa Ripley, Charles E. Merrill Publishing Company 1974.

SUGGESTED EVALUATIVE CRITERIA - FOR INSTRUCTIONAL MEDIA

1. Does the media encourage student participation?
2. Does the media promote critical thinking?
3. Does the media contribute meaningful content?
4. Is the media appropriate for the age and experience of the students?
5. Is the media authentic?
6. Does the media have clearly defined purposes?
7. Is the content up to date?
8. Is the content accurate and complete?
9. Is the continuity appropriate for efficient learning?
10. Is the content free from objectionable phrases?
11. Does the media give an accurate impression of time span and placement?
12. Does the media provide for a broad range of individual differences?
13. Are settings natural and situations real?
14. Is the presentation of content meaningful and appealing?
15. Is the physical condition of the media acceptable?
16. Is the vocabulary used in the media appropriate for the intended age level?
17. Are there possibilities for transfer and generalization developed through the use of the media?
18. Is the content communicated most effectively through the use of the media?
19. What other related media could be used to assist in the teaching-learning process?

SESSION NINE

GOAL STATEMENT

To become aware of available products, services and resources.

INSTRUCTIONAL OBJECTIVES

The participants will list media which would supplement an activity they have developed, or which they could use to develop an activity.

LESSON TIME

Entire class session

PREREQUISITE SESSIONS:

Session eight (last hour and a half)

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Worksheet Master* *Utilization Suggestions*	Local Media Source [for session ten: A catalog of the resources available from the local media source (if available)]

INSTRUCTOR PREPARATION TASKS

1. Prior to this class meeting the instructor should have arranged a field trip experience to a local media source.
2. Duplicate one copy of *Utilization Suggestions* for each participant.

*Optional

INSTRUCTIONAL PROCEDURES

(To be determined by instructor and Media Center Supervisor)

In addition to the preparation given in session eight that the participants list available media for a lesson they plan to teach. If this is done, each participant should receive a copy of *Utilization Suggestions* to complete during the visit to the Media Center.

If available the instructor should secure several catalogs of the resources available and have them available during session ten.

SPECIAL NOTE:

If a field experience cannot be scheduled, the participants should supply available media from their school, and spend this session previewing.

DEBRIEFING

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

UTILIZATION SUGGESTIONS

List the media you could use to develop an activity for your class.

MEDIA	PURPOSE*	RETRIEVAL INFORMATION (AUTHOR, TITLE, CODE #)
Film	Change Attitude	
Textbook	Communicate Information	
Models, Demonstrations	To Teach A Skill	
Video-tape	Present problem or raise questions	
Pictures, kits	Create interest	

*Suggested purposes, subject to teacher modifications

SESSION TEN

GOAL STATEMENT

To increase the effective utilization of human and material resources within the community.

INSTRUCTIONAL OBJECTIVES

1. *Given media resources descriptions available, the participants will develop an instructional activity incorporating one resource.*

2. *The participants will prepare for a guest speaker by listing questions they wish to ask during the presentation.*

3. *The participants will describe classroom activities that could result from a guest speaker's presentation.*

LESSON TIME

Follow-up of Field Experience:	15 minutes
Incorporating Media into a Lesson:	1½ hours
Instruction and Preparation for Speaker:	1 hour

PREREQUISITE SESSIONS

Session Nine for Follow-up Discussion and Activities (objective one)

None for Instruction and Preparation (objective two)

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Information Sheet Masters:	Catalog of resources at Media Center (if available)
Purpose for Utilizing Community Resources	Butcher paper
Scoping and Sequencing Exposure Activities	Felt tip pens
Visitors From the World of Work	

Instructor Preparation Tasks

1. If possible, several copies of the Media Center's catalogue should be available.

2. Duplicate for each participant:
   Purpose for Utilizing Community Resources
   Scoping and Sequencing Exposure Activities
   Visitors From the World of Work

Objective One - Follow-up Activities for Session Nine

INTRODUCTION

Discuss the resources available at the Media Center noting:
- a. services provided
- b. types and amount of equipment
- c. types and amount of materials
- d. policy regarding the acquisition, circulation and use of equipment and materials
- e. production facility and policy regarding local production

Tasks

Instruct the participants to refer to the *Utilization Suggestions* worksheet they completed while visiting the Media Center. They should now develop a classroom activity incorporating a resource available at the Media Center.

If possible, Media Center catalogues should be available for the participant's perusal.

The key feature of these activities will of course be the media, but to make effective use of the media, the teachers should:
1. develop a list of questions to use before and after, or
2. develop a student worksheet to accompany the media, or
3. develop a follow-up activity related to the concepts presented; art project, game, etc., or
4. develop a lesson in a regular subject (math, science, reading, etc.) that incorporates the information the students gained from the media.

Summary

Ask several participants to share their ideas.

INSTRUCTIONAL PROCEDURES - OBJECTIVE TWO

INTRODUCTION

It is paradoxical that as teachers we set out to prepare students to participate in the society, we remove them to four walled classrooms, far from the contact with the real world that constitutes that society. It is in society that people must be communicated with, arithmetic applied, where music is heard and sung and art is seen and enjoyed. It is this real world that the social studies books represent and where technology and science actually happen.

Typically educators have attempted to expose students to the world outside the school by occasionally bringing visitors into the class or taking students on field trips. These activities if not carefully planned can be almost a complete waste of time.

First and foremost, it is important that the teacher know exactly why a community resource is being utilized. Possible purposes of field trips or classroom guest speakers include:

(Distribute information sheet entitled *Purposes for Utilizing Community Resources.)*

Secondly, it is important that the faculty or school district coordinate the use of community resources so that a single business or individual is not constantly being required to give up their time. It is also important that teachers coordinate the objectives of their community utilization. The scoping and sequencing of trips or speakers should be shared by all teachers so that each event builds on the students' previous experience. An example of scoping and sequencing exposure can be found in an Iowa exemplary project. These take into account the child's ability to accommodate increasingly wider horizons as he matures.

(Distribute *Scoping and Sequencing Exposure Activities.)*

Thirdly, it is advisable that the teacher make a "dry run" of trip or prior content preparations with the speaker. This will provide information to the teacher which will help prepare the students for the activity. It is suggested that pre-speaker or trip activities be done in class so the students are better prepared for the variety of things they may see or hear.

TASKS

In preparation for the speaker's presentation next session, and as a model for the participants to emulate in their classes discuss the speakers background, occupation and reason for his visit.

(Instruct the participants to form groups, each listing three questions they would like to ask the speaker. These groups

or questions may be categorized into:)

a. Preparation and education required
b. Work tasks/responsibilities/physical demands
c. Working environment/conditions
d. Satisfactions/benefits derived
e. Related occupations

Discuss the questions to be asked, noting the appropriateness of each. It is best to avoid potentially embarassing questions like:

a. how much money do you make?
b. what are your chances for advancement?
c. what is the worst part of your job?

Answers to these can be derived by rephrasing the questions so as to not embarass the speaker.

(Distribute *Visitors From the World of Work.)*

Group the participants in groups of 4-6.

The concept of discovering the world of work is quite different from the concept of observing the world of work. Field trips allow the student to observe the world of work away from the school. A great deal about the world of work can be discovered right in the classroom.

Within the walls of a classroom there is an excellent opportunity for discovering much about the world of work. If a class has 30 students, there could be as many as sixty kinds of work done. All families have essentially the same needs. The society in which we live is certainly the most interdependent society man has ever known. This can be shown in a classroom by engaging the students in a similiar activity as the one presented to the participants.

(Distribute butcher paper and pens to each group.)

Ask each participant to list their spouses' occupation, then the occupation of their mothers and fathers.

In their small groups they should ask themselves how they are dependent upon the products or services listed on the butcher paper. Then ask them to draw lines between the occupations that depend on another listed occupation for equipment, materials, services, etc. in order to perform their work tasks. (For example, a grocer relies on the farmer, canner, trucker, etc.)

It should be rather surprising to see how many different occupations were represented in this group. As this is done in the classroom an opportunity to develop an appreciation of workers presents itself (as well as the dependency of society on workers). It will also provide information to the teacher about guest speaker resources within the classroom.

Explain to the class that this activity could be expanded to categorizing occupations into clusters, good/services, educational preparation, geographic conditions that create or eliminate jobs, etc. Elicit other activities that could result from this experience in their classrooms.

SUMMARY

In addition to preparing for the guest speaker during session eleven, the participants engaged in an activity they could use to further career outcomes in their classrooms, while identifying parents as potential guest speakers.

DEBRIEFING

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before the debriefing sessions. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

BIBLIOGRAPHY

Evans, Rupert, et. al. *Career Education in the Middle/Junior High School.* Salt Lake City: Olympus Publishing Company 1973.

Hoyt, Kenneth B., et. al. *Career Education and the Elementary School Teacher.* Salt Lake City: Olympus Publishing Company 1973.

Isenberg, Robert and Smith, Joel. *Involving the Community in Career Education.* Career Education Monography No. 9. North Carolina State University at Raleigh 1973.

VISITORS FROM THE WORLD OF WORK

It is often more efficient to bring representatives from the world of work into the school than to take students to the work setting itself. Whenever and wherever career education goals are addressing perceptions workers have of themselves and of work--as opposed to the basic nature of the work task itself--it is desirable to use the classroom rather than the work site as the primary learning environment. Several types of class visitors can be considered here:

(1) Community workers and parents can be brought in to serve with teacher groups as participants.

(2) Members of the retired community can be used in classrooms as speakers on careers or satisfying leisure activities.

(3) Members of the working community can be brought in to talk about their jobs and leisure activities.

(4) Members of the community representing alternate life-styles (communal living, welfare recipients, college graduates working with arts and crafts, etc.) can be brought into the classroom to discuss the satisfactions of that life-style.

(5) Parents can come into the classroom with the tools of their trade.

(6) Candidates can be brought in to discuss their political platforms and previous occupations.

(7) Members of the teaching staff can be surveyed as to other jobs they have held or are holding, and can be used as resources.

(8) Each student can spend a day at work with his father, mother, uncle, or neighbor.

(9) Members of local unions can come into the classroom.

(10) Personnel managers can visit to discuss hiring procedures. Video tapes can be made of them interviewing applicants.
Students can role-play some techniques.

Many elementary schools have found it valuable to ask parents to come to school for purposes of discussing their occupations with students. The use of parents for such purposes holds many advantages, including:

(1) The spectrum of parental occupations for members of a given class has some relationship to occupations that in fact are most likely to become available to pupils here that cannot be ignored.

(2) For the parent to describe his occupation holds positive potential for enhancing feelings of self-worth on the part of both the parent and the child.

(3) It is often easier to make contacts with the world of work through parents than through strangers in the community.

(4) By involving parents in the career education process, parental understanding of and support for that program will likely to enhanced.

*Career Education and the Elementary School Teacher, Olympus Publishing Company, 1973.

PURPOSES FOR UTILIZING COMMUNITY RESOURCES*

(1) Acquainting students with the general nature of the occupational structure in the specific time and space dimensions of their own communities.

(2) Demonstrating the essentiality of various kinds of work to economic or human progress.

(3) Demonstrating the ways in which different kinds of work provide a useful set of personal and social benefits.

(4) Helping students see how workers in various occupations make use of the basic academic skills taught in the elementary school.

(5) Helping students understand the need for cooperation and teamwork in the production of goods and services.

(6) Helping students see and understand that different kinds of skills and expertise are required for different kinds of work.

(7) Helping students understand why both "bosses" and "employees" are essential in the world of work.

(8) Helping students see first-hand the variety of settings and environmental conditions in which work is performed.

*Career Education and the Elementary Teacher, Olympus Publishing Company, 1973

SCOPING AND SEQUENCING EXPOSURE ACTIVITIES*

(1) Level I might consist of those occupations that the child has direct contact with during his day, those that directly affect his way of life. These should be visible occupations where something is being made or done that the child can see.

(2) Level II includes occupations that directly affect the child or his family, the occupations again being those the child can visualize as a product or service.

(3) Level III has those occupations that affect him indirectly through his family or community. They would be occurring in settings to which he would not ordinarily have access.

(4) Level IV has those occupations that the student may not be aware of at all. They would typically deal with the more abstract or hidden types of work or product components.

*Career Education and the Elementary School Teacher, Olympus Publishing Company, 1973

SESSION ELEVEN

GOAL STATEMENT

To identify interests related to occupational choice.

INSTRUCTIONAL OBJECTIVES

Given a self-completed interest inventory, the participants will score and evaluate the results.

LESSON TIME

Guest speaker presentation and Follow-up (Objective one):	1 hour 30 minutes
Instruction and Practice:	1 hour 30 minutes

PREREQUISITE SESSIONS

None

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Worksheet masters: *Interest Factors* *Interest Surveys*	Guest speaker Copies of an interest inventory Scoring procedures for interest inventory

INSTRUCTOR PREPARATION TASKS

1. Prior to this session a guest speaker should have been scheduled.
2. Duplicate for each participant *Interest Factors*.
3. Secure copies and scoring directions of an interest inventory for each participant.

Guest Speaker Presentation (first half of class)

INTRODUCTION

Introduce the speaker to the class.

TASKS

Provide time for the speakers presentation and questioning by participants.

SUMMARY

Discuss the speaker's presentation.

Were the participants' questions answered?

What kinds of questions seemed to yield the most information?

Did the speaker concentrate on work tasks (occupational information), or did he/she prefer discussing the life style aspects of the occupation?

How did the speaker's occupation relate to the three dimensional model discussed in session eight--job, vocation, leisure?

What kinds of information would students be most interested in?

Instructional Procedures

INTRODUCTION

The purpose of this session is to consider the impact of interests and values on decisions. As students reach the final years of elementary school, their interests begin to stabilize to some observable degree. This doesn't mean that these interests won't change, for they will. Nevertheless, the change won't be as rapid or as random as when they were younger. For example, some students will clearly favor outdoor activities, while others will prefer indoor ones. Some will exhibit a clear preference for doing "people-type" activities while others will consistently choose to be alone or engage in "thing-type" activities.

Interests begin to manifest themselves in other dimensions. (Distribute and discuss the excerpt from the Dictionary of Occupational Titles, Volume 2, *Interest Factors.*)

Interest testing in career guidance is useful. Most interest surveys or inventories seek to identify one's comparative interest in a variety of activities or to contrast the interest pattern of the individual being tested with profiles representative of workers in selected career areas.

(Distribute *Interest Surveys* to each participant.)

TASKS

Administer a selected interest inventory to each participant.

If time permits, score the inventory and discuss the results. If there is not enough time the participants should be instructed to complete the test at home and return it next session for scoring. Follow the scoring procedures recommended by the test developers.

Discuss the results of the inventories in terms of the individuals three dimensional career activities--job, vocation and leisure. Are the results compatible with their job or their vocation or their leisure activities? Discuss the aspects of each area that relate to the results on the test.

Discuss methods for using an interest inventory in their classrooms.

SUMMARY

This session included a discussion by an invited guest speaker. An interest inventory was administered and scored. The scores were then discussed in terms of the individual's job, vocation and leisure activities.

DEBRIEFING

Try to structure the debriefing sessions in terms of the participants themselves. Ask yourself what the participants now know about some career education concern that they did not know before. The debriefing sessions should:

1. Identify points of confusion
2. Produce a summary of the main points in the session
3. Provide an evaluation of the exercise
4. Provide suggestions for future modifications of the exercise
5. Identify additional topics the group wants to study

BIBLIOGRAPHY

Career Education Testing Guide. Pima County Career Development Project. Tucson, Arizona 1973.

INTEREST FACTORS*

Preference for certain types of work activities or experiences, with accompanying rejection of the material types of activities or experiences. Five pairs of interest factors are provided so that a positive preference for one factor of a pair also implies a rejection of the other factor of that pair.

1.	situations involving a preference for activities dealing with things and objects	OR	6.	situations involving a preference for activities concerned with people and the communication of ideas?
2.	situations involving a preference for activities involving business contact with people	OR	7.	situations involving a preference for activities of a scientific and technical nature?
3.	situations involving a preference for activities of a routine, concrete, organized nature	OR	8.	situations involving a preference for activities of an abstract and creative nature?
4.	situations involving a preference for working for people for their presumed good, as in the social welfare sense, or for dealing with people and language in social situations	OR	9.	situations involving a preference for activities that are nonsocial in nature, and are carried on in relation to processes, machines, and techniques?
5.	situations involving a preference for activities resulting in prestige or the esteem of others	OR	10.	situations involving a preference for activities resulting in tangible, productive satisfaction?

Dictionary of Occupational Titles, Volume 2

INTEREST SURVEYS

Kuder Form E - General Interest Survey
G. Frederic Kuder

____ Published by Science Research Associates, Inc.
____ Testing time = approximately 40 minutes
____ Cost = 30 cents per pupil
____ Grades 6-8 +

This test measures an individual's degree of preference for activities in ten areas: outdoor, mechanical, scientific, computational, persuasive, artistic, literary, musical, social service, and clerical. Porfile leaflets direct pupils' attention to broad vocational areas.

What I Like to Do - Interest Inventory
L. P. Thorpe, C. E. Meyers, M. R. Bousall

____ Published by Science Research Associates, Inc.
____ Testing time = approximately 60 minutes
____ Cost = 41 cents per pupil
____ Grades 4-7

An interest inventory that identifies a pupil's preferences in art, music, social studies, active play, quiet play, manual arts, home arts, and science.

Interest Inventory for Elementary Grades
Mitchell Dreese, Elizabeth Mooney

____ Published by Western Psychological Services
____ Testing time = approximately 30 minutes
____ Cost = 56 cents per pupil
____ Grades 4-6

Identifies general interests of pupils in careers, school subjects, hobbies, people, reading and activities.

Ohio Vocational Interest Survey
A. G. D'Costa, D. W. Winefordner, P. B. Koores, J. G. Odgers

____ Published by Harcourt Brace & World, Inc.
____ Testing time = approximately 1½ hours
____ Cost = 58 cents per pupil
____ Grades 8+

This is a two part instrument. The first part, the student information questionnaire, gathers background information. The Interest Inventory profiles a student's interests along 24 scales which represent the entire range of careers as defined in the "Dictionary of Occupational Titles."

Brainard Occupational Preference Inventory

____ Published by the Psychological Corporation
____ Testing time 30 minutes
____ Cost =
____ Grades 8-12; adults

The inventory covers six broad occupational fields; (1) commercial, (2) mechancial, (3) professional, (4) aesthetic, (5) scientific, and (6) personal service (for girls) or agriculture (for boys). Each occupational field is covered by twenty items which the respondent marks on a five-point scale ranging from "like very much" to "dislike very much." Data in the manual show that the instrument has moderate to low correlations with the *Kuder Preference Record - Vocational*. Scoring is simple. Evidence on validity is lacking.

Gordon Occupational Check List (OCL)

____ Published by Harcourt Brace and World
____ Testing time 20-25 minutes
____ Cost =
____ Grades high school students not planning to enter college.

The OCL is designed for use with individuals who have a high school education or less. The inventory contains 240 statements of job duties and tasks that are found in occupations at the middle and lower levels of skill and responsibility. The statements are classified into five broad occupational groupings. Top-level managerial and professional occupations are not included. Test-retest reliability data tend to be in the middle or high 80's. No norms are reported. Validity data is meager.

Kuder Preference Record - Occupational

____ Published by Science Research Associates, Inc.
____ Testing time 25-35 minutes
____ Cost =
____ Grades 9-16 and adults

The KPR-Occupational yields 50 scores for specific occupational groups and one verification score. The occupational keys were developed by comparing answers of men in specific occupations with men in general. Concurrent validity data only are reported in the manual. No predictive validity data are provided. Test-retest reliability data are scarce. The only test-retest data reported in the manual are over a one-month interval; the median correlation is .85. Correlations between *Kuder* scales and the corresponding scale of the *Strong Vocational Interest Blank* tend to be low to moderate. At the present time, more data on reliability and validity are needed.

Kuder Preference Record - Vocational

____ Published by Science Research Associates
____ Testing time 40-50 minutes
____ Cost =
____ Grades 9-16 and adults

Yield scores for the following interest clusters: outdoor, mechanical, computational, scientific, persuasive, artistic, literary, musical, social service and clerical.

Kuder Preference Record - Personal

____ Published by Science Research Associates
____ Testing time 40-45 minutes
____ Cost =
____ Grades 9-16 and adults

Using the same pattern for items as the *Kuder Preference Record-Vocational*, this inventory appraises liking for five more aspects of life situations; being active in groups, being in familiar and stable situations, working with ideas, avoiding conflict, and directing others. The scores are fairly independent of each other and of those in the *Vocational* blank. The value of these scales for guidance purposes is less fully explored than that of the scales in the *Vocational* form.

Minnesota Vocational Interest Inventory (MVII)

____ Published by The Psychological Corporation
____ Testing time 40-45 minutes
____ Cost =
____ Grades high school and adults

The MVII is an empirically-keyed inventory designed to appraise interests in non-professional occupations. It has been designed for use with noncollege-bound high school students or young adults who have had limited education or had a technical-vocational education.

Strong Vocational Interest Blank for Men, Revised (SVIB)

____ Published by Consulting Psychologists Press, Inc.
____ Testing time 30-60 minutes
____ Cost =
____ Grades ages 17 and over

This is made up of 399 items mostly dealing with liking for or preference between occupations, school subjects, amusement, activities and types of people. About 60 different scoring keys are available. Most keys are for specific occupations, but there are also keys with a more general reference designated Academic Achievement, Masculinity-Femininity, Occupational Introversion-Extroversion, Occupational Level and Specialization Level.

Strong Vocational Interest Blank for Women, Revised (SVIB)

____ Published by Consulting Psychologists Press, Inc.
____ Testing time 30-60 minutes
____ Cost =
____ Grades ages 17 and over

The SVIB for women is similar to the blank for men. This version has not been as thoroughly studied as the men's blank, nor does it seem to be as effective as the men's blank.

SESSION TWELVE

GOAL STATEMENT

To culminate a semester experience learning about and developing career education materials.

INSTRUCTIONAL OBJECTIVES

Given a test covering the objectives of this course, the participants will indicate their mastery of the objectives by scoring 75% accuracy.

LESSON TIME

Determined by instructor

PREREQUISITE SESSIONS

All

RESOURCES REQUIRED

Found Within Manual	Acquired by Instructor
Course Posttest *Class Evaluation* Information Sheets: *Why Explore Careers?* *How May Careers Be Explored?* *Course Posttest Key*	

INSTRUCTOR PREPARATION TASKS

1. Review the two questions and accompanying responses
2. Duplicate for each participant:
   Why Explore Careers
   How May Careers Be Explored
   Course Posttest

This last session may include:

- An individual review and critique by the instructor of the products developed by the participants.
- A presentation of products by selected participants.
- A discussion of how and why careers should be explored with students.
- An evaluation of the course completed by the participants.
- An evaluation of the participants' cognitive learning as determined by a course posttest. (To be consistent with principles taught in this course, the instructor should score and discuss the posttest upon its completion by the participants.)

BIBLIOGRAPHY

Hoyt, Kenneth B., et. al. *Career Education and the Elementary School Teacher.* Salt Lake City: Olympus Publishing Company 1973.

HOW MAY CAREERS BE EXPLORED?*

1. Effective career exploration is action oriented.

2. Effective career exploration emerges from questions important to children.

3. Effective career exploration stresses wide ranging and minimizes choice making.

4. Effective career exploration is not given letter grades on report cards and evaluation is kept to an absolute minimum.

5. Effective career exploration starts with jobs and positions held by parents of the children involved.

6. Effective career exploration expands outward from parents' jobs, and from other jobs in the immediate vicinity, to include jobs of relevance in the city, state and nation.

7. Effective career exploration brings children into meaningful contact with a variety of workers at their jobs.

8. Effective career exploration relies more on occupational briefs prepared by children than on commercial materials.

9. Effective career exploration is not overweighted in favor of amassing or digesting occupational information.

*Developing Careers in the Elementary School, edited by Norman C. Gysbers, Wilbur Miller, Earl J. Moore. Charles Merrill Publishing Company, Columbus, Ohio, 1973

WHY EXPLORE CAREERS?*

1. Exploring careers helps children develop a personal sense of present and future worth.

2. Exploring careers helps children develop a feeling of place in their society.

3. Exploring careers helps children see how adults achieve the place they have.

4. Exploring careers injects the school into a meaningful outgoing process.

5. Exploring careers helps children see the value and significance of all honest work.

6. Exploring careers helps children develop enthusiasm about the whole prospect of work as a way of life.

7. Exploring careers helps counteract the physical and/or psychological absence of male working role models upon attitudes toward work.

8. Exploring careers helps children develop a concept of life as a reality extending through several interrelated and interdependent phases.

9. Exploring careers is consistent with good learning theory.

*_Developing Careers in the Elementary School_, edited by Norman C. Gysbers, Wilbur Miller, Earl J. Moore. Charles Merrill Publishing Company, Columbus, Ohio, 1973.

Course_____ Name_____

Semester_____ Date_____

POSTTEST

1. List three conditions existing in our present society that indicate the need for career education.

   a._____

   b._____

   c._____

2. List a career education concept related to each of the following areas:

   a. Role of Work in Life and Society_____

   _____

   b. Nature of the World of Work_____

   _____

   c. Education and the World of Work_____

   _____

   d. Career Development/Decision Making_____

   _____

   e. Work Habits_____

   _____

3. Which is not one of the four major characteristics of a well-formed objective?

   a. Verb

   b. Subject

   c. Activity

   d. Standards

   e. Conditions

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Posttest (continued)

4. Circle the criteria to bear in mind while developing an instructional sequence.

   a. Make the material interesting

   b. Irrelevancies should be avoided

   c. Include immediate feedback of results

   d. Use one of 16 terms to describe behavior

   e. Provide relevant or appropriate practice

5. Classify each statement and level of behavior below by writing the correct letter in front of the statement.

   Cognitive = C Affective = A Psychomotor = P

   _____is to apply the formula

   _____responds with respect to workers

   _____reaches a level of precision on a wood lathe

   _____has knowledge of 60 percent of the words on a spelling test

   _____comprehension

   _____value

   _____receive

   _____imitation

   _____evaluation

   _____synthesis

6. Two general classifications of test items are (a)_____ and (b)_____. List one example of an item for each classification.

   (1)_____

   (2)_____

7. List the two major content differences between a mini-lesson and an instructional unit.

   a. _____

   b. _____

8. List and define the components of the three dimensional career models.

9. List five areas of information you gathered from the field experience.

a. _____

b. _____

c. _____

d. _____

e. _____

10. List five factors to consider while evaluating the usefulness of a resource item.

a. _____

b. _____

c. _____

d. _____

e. _____

11. List areas or topics a guest speaker could respond to.

a. _____

b. _____

c. _____

d. _____

e. _____

12. Name and describe a specific interest inventory.

a. Name:

b. Publisher:

c. Testing time:

d. Grade levels:

e. Description:

CLASS EVALUATION

Career Education

Classes should be evaluated by the participant in order to improve the content and value of a class. For these reasons you are being asked to comment on the following statements.

1. How could class be better structured? Please comment on each.

   a. Time

   b. Methods

   c. Content

2. How could class participation be improved? More or less small group activity, etc. Comment.

3. Was instructor preparation adequate? Comment.

4. Should there have been more hand out materials? Was textbook necessary? Comments.

5. Should the class have been taught with emphasis on either elementary or secondary? Please comment.

6. Should class have been more structured as to lecture, media, emphasis on grades?

7. Should class be more individually oriented?

8. Is a relaxed atmosphere a detriment to instruction for this particular class?

9. Please make further comments for individual opinions.

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Course_____ Name_____

Semester_____ Date_____

POSTTEST KEY

1. List three conditions existing in our present society that indicate the need for career education.

   a. 80% of jobs don't require a college degree

   b. deflating value of the diploma

   c. changing jobs/new and obsolete job

2. List a career education concept related to each of the following areas: (other responses acceptable--refer to lesson two.)

   a. Role of Work in Life and Society Occupations exist for a purpose

   b. Nature of the World of Work People have many kinds of careers

   c. Education and the World of Work Education and Work are interrelated.

   d. Career Development/Decision Making The choice of a career usually involves a compromise between greater and lesser needs.

   e. Work Habits There are identifiable attitudes and behaviors which enable a person to obtain and hold a job.

3. Which is not one of the four major characteristics of a well-formed objective?

   a. Verb

   b. Subject

   (c.) Activity

   d. Standards

   e. Conditions

Posttest (continued)

4. Circle the criteria to bear in mind while developing an instructional sequence.

   a. Make the material interesting

   b. Irrelevancies should be avoided

   c. Include immediate feedback of results

   (d.) Use one of 16 terms to describe behavior

   e. Provide relevant or appropriate practice

5. Classify each statement and level of behavior below by writing the correct letter in front of the statement.

   Cognitive = C Affective = A Psychomotor = P

   C is to apply the formula

   A responds with respect to workers

   P reaches a level of precision on a wood lathe

   C has knowledge of 60 percent of the words on a spelling test

   C comprehension

   A value

   A receive

   P imitation

   C evaluation

   C synthesis

6. Two general classifications of test items are (a) Supply Type and (b) Choice Type. List one example of an item for each classification.

   (1) essay, short ans., completion, fill-in

   (2) multiple choice, true/false, matching

7. List the two major content differences between a mini-lesson and an instructional unit.

   a. unit teaches for a specific measurable objective (mini is more awareness)

   b. unit may be used in addition to or as a replacement for regular curriculum (mini is in conjunction with regular curriculum)

Posttest (continued)

8. List and define the components of the three dimensional career models.
   a. job -- activity by which one earns a living
   b. vocation -- activities which provide fulfillment and satisfaction
   c. leisure -- fun, relaxing enjoyable activities that don't contribute to 1 or 2 above

9. List five areas of information you gathered from the field experience.

   a. service provided

   b. types and amount of equipment

   c. types and amount of materials

   d. acquisition, circulation and use policy

   e. production facility and policy

10. List five factors to consider while evaluating the usefulness of a resource item. (accept other responses, see lesson eight)

   a. Is the content up to date?

   b. Does the media promote critical thinking?

   c. Does the media encourage student participation?

   d. Is the presentation meaningful and appealing?

   e. Is the vocabulary appropriate for the intended grade level?

11. List areas or topics a guest speaker could respond to.

   a. Preparation and education required

   b. Work tasks/responsibilities/physical demands

   c. Working environment/conditions

   d. Satisfactions/benefits derived

   e. Related occupations

12. Name and describe a specific interest inventory.

   a. Name:

   b. Publisher:

   c. Testing time:

   d. Grade levels:

   e. Description:

See session eleven for suitable responses.